

The cover art is a dramatic, high-contrast illustration of a Pacific War battle scene. The sky is a deep, fiery red, filled with thick black smoke and orange flames. Several military aircraft are depicted: a large, silver, single-engine fighter with a prominent propeller and landing gear is in the upper center, angled towards the right. To its left, a smaller, dark-colored aircraft is visible. In the upper right, a large, dark, multi-engine bomber is shown in silhouette, appearing to be in a steep climb or maneuver. The background features a stylized, fragmented design with blue and white geometric shapes resembling a sunburst or a stylized flag. The overall atmosphere is one of intense conflict and destruction.

# WAR IN THE PACIFIC

*The Struggle Against Japan 1941 - 1945*

## GAME MANUAL

The bottom of the cover shows a dark, choppy sea. In the foreground, several warships are visible. On the left, a large, dark-hulled ship, possibly a battleship or cruiser, is partially obscured by smoke. To its right, a smaller, lighter-colored ship is visible. On the far right, another large ship is partially seen. The ships are silhouetted against the dark water, and the overall scene suggests a naval battle or a fleet movement during the war.



# **War in the Pacific**

## **The Struggle Against Japan, 1941-45™**

### **User Manual**





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## 1.0 INTRODUCTION

The road that led to war in the Pacific was as long as the ocean is vast. Japan's dreams of glory and conquest came from lessons learned from Western countries (the U.K., France, Holland, and even the United States) with regards to colonialism. Japan's defeat of Russia in a short but violent war in 1904 brought praise from the West and instilled a fierce determination in the Japanese that they were now a modern world power. This led to further aggressions aimed at mainland China, which began as a war in 1931.

When Japan's aggressiveness began to concern other nations, Japan reacted violently: how dare, they thought, the very countries that practiced blatant colonialism, imposing their own yokes on lands throughout the Pacific banish us from doing the same? They thought of this as little more than blatant hypocrisy.

Japan's road to war has been covered at great length in many texts. In summary, Japanese fear of reliance on foreign provision of resources, plus inroads made by many Western nations in China and Southeast Asia, served to fuel the fires that had been long simmering in Japan's military. By December 7th, 1941, these fires burned out of control as a strike force took off from the decks of the fleet carriers *Akagi*, *Soryu*, *Hiryu*, and *Kaga* to lay waste to much of the American Pacific Fleet at Pearl Harbor. From then until mid-1942, Japan ran wild across the Pacific, conquering large territories and sending a bewildered Allied foe reeling. Eventually, however, the sheer size of their conquests made the Japanese military machine vulnerable.

The War in the Pacific was a conflict of extreme sizes. The ocean itself covers more than a quarter of the planet's surface (over 155 million square miles) and is larger than all the land masses combined. China and Southeast Asia totalled about five million square miles. Over much of this vast territory Japan ruled for several years, an amazing feat considering Japan is not even 150,000 square miles in size. Also, Japan's 1941 population was just over 71 million people; by mid-1942, they ruled almost a quarter of a billion people.

In *War in the Pacific - The Struggle Against Japan, 1941-45™*, players may choose to direct the Japanese or Allied war efforts in one of several scenarios that cover a portion of the war in the Pacific, or may choose the dynamic campaign game that covers the entire map. With a strong AI management system, a player may choose to hand over certain theatres in the Pacific to the computer while they concentrate on a particular theatre of interest. This ability gives the player the flexibility of playing a smaller portion of a large-scale game without losing the feel of being part of something bigger.

## 1.1 MAIN MANUAL

*War in the Pacific - The Struggle Against Japan, 1941-45™*'s scope is as vast as the ocean it is named after and will take an investment of time to learn. However, we know that some players prefer to dive right in. In that case, in addition to this manual, the player will find a separate Tutorial Guide that provides a step-by-step experience that touches on the major aspects of *War in the Pacific - The Struggle Against Japan, 1941-45™*. Players anxious to begin should read through and follow the Tutorial Guide and then refer to this manual for more in-depth information.

## 1.2 TUTORIAL GUIDE

The Tutorial Guide (located on your CD-ROM disc) is a short but informative way of getting down the basics of *War in the Pacific - The Struggle Against Japan, 1941-45™*. Not every aspect of the game is covered in the tutorial; it serves as a means to learn some basic orders and guide you through some of the most important screens in the game. Read through the Tutorial Guide first if you want to dive right in to the game, then refer back to the Main Manual for added detail.

## 1.3 EDITOR MANUAL

*War in the Pacific - The Struggle Against Japan, 1941-45™* has an editor feature that allows you to create your own scenarios anywhere on the Pacific map. Describing this powerful tool within the pages of the Main Manual would be inappropriate as there is quite a bit of information to digest there. Please refer to the Editor Manual located on your CD-ROM disc for further information.

**Please note – when creating a scenario, DO NOT set the starting date of the scenario prior to December 1, 1941, or the game will not function properly.**

## 1.4 INSTALLATION

To install *War in the Pacific - The Struggle Against Japan, 1941-45™* just insert your *War in the Pacific - The Struggle Against Japan, 1941-45™* CD into your CD-ROM drive. The installation menu will pop up and allow you to install *War in the Pacific - The Struggle Against Japan, 1941-45™* by clicking the “Install War in the Pacific” button.

Some Windows users may have problems with AutoPlay. If the AutoPlay screen does not automatically appear after inserting your *War in the Pacific - The Struggle Against Japan, 1941-45™* CD into your CD-ROM drive, please follow these steps

1. Close all running programs.
2. Insert the *War in the Pacific - The Struggle Against Japan, 1941-45™* CD into your CD-ROM drive.
3. double click My Computer on your desktop.
4. Double click the CD ROM icon.
5. Double click on the setup.exe icon to launch the installer menu.
6. Install *War in the Pacific - The Struggle Against Japan, 1941-45™* by clicking the **Install War in the Pacific** button in the installation menu.

*War in the Pacific - The Struggle Against Japan, 1941-45™* will only work in 1024x768 mode; 800x600 is not supported.



## 1.5 PRODUCT UPDATES

In order to maintain our product excellence, Matrix Games releases updates containing new features, enhancements, and corrections to any known issues. Keeping up with these updates is made easy and is free by signing up for a Matrix Games Member account. When you're signed up, you can then register your Matrix Games products in order to receive access to these important game-related materials. Doing so is a simple two step process:

- **Sign Up for a Matrix Games Member account** – THIS IS A ONE TIME PROCEDURE; once you have signed up for a Matrix account, you are in the system and will not need to sign up again. Go to [www.matrixgames.com](http://www.matrixgames.com) and click the Members hyperlink at the top. In the new window, select **Register NOW** and follow the on-screen instructions. When you're finished, click the **Please Create My New Account** button, and a confirmation e-mail will be sent to your specified e-mail account.
- **Register a New Game Purchase** – Once you have signed up for a Matrix Games Member account, you can then buy any Matrix Games title and register it in your new account. To do so, log in to your account on the Matrix Games website ([www.matrixgames.com](http://www.matrixgames.com)). Click Register Game near the top to register your new Matrix Games purchase.

Once you've registered your game, when you log in to the Members section you can view your list of registered titles by clicking **My Games**. Each game title is a hyperlink that will take you to an information page on the game (including all the latest news on that title). Also on this list is a **Downloads** hyperlink that takes you to a page that has all the latest downloads, including patches, for that particular title.

Remember, once you have signed up for a Matrix Games Member account, you do not have to sign up again – at that point you are free to register for any Matrix Games product you purchase. Thank you and enjoy your game!

## 1.6 GAME FORUMS

Our forums are one of the best things about Matrix Games. Every game has its own forum with our designers, developers and the gamers playing the game. If you are having a problem, got a question or just an idea on how to make the game better, post a message there. Go to <http://www.matrixgames.com> and click on the **Forums** hyperlink.

## 2.0 GETTING STARTED

*"We must not again underestimate the Japanese."*

- Admiral Chester W. Nimitz, Commander in Chief of the Pacific Fleet (stated after the bombing of Pearl Harbor, 1941)

Playing *War in the Pacific - The Struggle Against Japan, 1941-45™* is a task that may seem daunting at first, with lots of information and the ability to direct the entire war in the Pacific all the way down to individual air squadrons, ships, and ground units. With practice, the information screens and orders to be issued will become second nature before long. However, playing this

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simulation well requires a thorough knowledge of the rules. This manual will describe the various game menus and mechanics involved in the game.

As mentioned in section **1.1 Manuals**, above, if you're new to *War in the Pacific - The Struggle Against Japan, 1941-45™* and want to dive right in, please refer to the Tutorial Guide that is placed on your hard drive when the game is installed.

The *War in the Pacific - The Struggle Against Japan, 1941-45™* system may seem daunting at first; there are a lot of myriad details to keep in mind, and those details are spread out over many units and sub-units, as well as vast distances. But at heart, the concepts described above are quite simple. However, a few extra pointers would prove useful.

The War in the Pacific Ocean itself was a war over bases. The mainland conflict in China and Burma/Southeast Asia was a different breed of war altogether; the Japanese were still conducting grand land offensives into the depths of China even as 1944 drew to an end, while their Navy brethren literally ceased to exist under the hammer blows of the Allied navies. Keep in mind your grand strategy in the South Pacific should be focused on base security. As you capture bases, you can develop them (using engineers), stock them with supplies, and build up port facilities for further strikes. Combat at sea is hinged on what bases are occupied by whom; if a battle takes place deep within an Allied-controlled area of bases, for example, the Japanese will be at the mercy of a never-ending stream of scout planes and land-based striking power. So to can this fate meet with the Allies if they venture too far north into Japanese territory.

While capturing bases is of importance, denying their use to the enemy is just as important. If one side cannot occupy a base for whatever reason, making sure the other side cannot use it is just as much a victory as occupying it yourself. Keep in mind too that taking a base means needing to build an infrastructure to support and defend it; Bases need supplies, troops to defend it, and other facilities. It wouldn't do to build a base from scratch, for instance, and then have the enemy waltz in and take over your gleaming new facilities. When capturing or creating new Bases, be sure that you have the power to back it up. Or, if making a bold move deep into enemy territory, be sure you can back it up a **lot**.

The first order of business in any scenario is to look over your holdings. Examine each base and determine each's strengths and weaknesses. Strengths are, of course, land-based units and land-based airpower, or ships in port. Weaknesses could include proximity to enemy bases, being in range of enemy airfields, being short on supplies, being off the beaten path, and the like. Also, find all of your Task Forces at sea and examine them. Once you have a clear picture of your available forces, examine your enemy's setup (as best you can, as information on them is likely to be rather slim). Guadacanal is a good focal point for both sides; depending on the scenario chosen it is likely that both sides have a substantial force on or near the island, so it needs to be determined quickly what forces are needed to commit there to overwhelm the enemy and deny that important location to them. The AI is programmed to look for weaknesses, but it also has its own designs on territory. Don't become too enraptured or focused on one part of the South Pacific, as you could easily lose sight of conflicts brewing in other island chains.

## 2.1 INTERFACE

The interface for *War in the Pacific - The Struggle Against Japan, 1941-45™* is centered on four types of input:

1. **Toggle switches** that turn on and off their associated options.
2. **Icons, represented by the buttons in the Menu Bar.** These buttons are on the left of the Hex Information Display and on the right in the Base Information Screen. These bring up lists or menu screens that may in turn take you to additional screens where you give orders.
3. **Icons in the Hex Information Display** that represent individual units in the current hex. Click on the icons to open Unit Information Screens.
4. **Directional arrows**, which are the small left and right arrows next to many items. These scroll through a listing of available choices. When there is a single arrow pointing to the right, it either launches another menu, as in "Form Task Force," or it toggles orders such as "Automatic Convoy Off/On."

When text is yellow, it can be clicked on, either opening a menu screen if it is a ship or unit, or sorting it if it is in the column heading of the various databases. However, if the data concerns a unit's supply or damage status, then the text is solely for information (don't bother clicking on it). This text will appear as orange or red.

Pressing the Esc key will close the current pop-up and either move back one window or close all pop-up windows. This is true for pop-ups during the resolution phase as well. Right-clicking on a TF icon in the Hex Information Display Area will also close any pop-up and make that unit the active unit (and also displaying its Task Force Radius circles if this option is on). The same applies to an air unit and its Air Radius circles.

## 2.2 HOTKEYS

*War in the Pacific - The Struggle Against Japan, 1941-45™* includes several hotkeys:

[F2]	Toggles display between between <i>not</i> showing all computer controlled TFs (auto-convoy and others), <i>not</i> showing human TFs, and showing <i>all</i> TFs.
[F3]	Toggle Plane Range Radius on/off
[F4]	Toggle Task Force Move Radius on/off
[F5]	Toggle combat animations on/off
[F6]	Toggle detailed hexside info on/off
[F7]	Toggle clouds on/off
[F8]	Toggles combat summaries on/off but will retain combat reports
[F9]	Allow human players to enter the Orders Phase at next opportunity
[A]	Bring up the List All Land Based Air Units screen
[B]	Bring up the List All Bases screen
[C]	Bring up the Combat Report screen
[D]	View aircraft, troop and vehicle Database
[E]	End the orders phase
[F]	Save the game
[G]	Bring up the List All Ground/Land Based Units screen
[H]	Show the Auto Convoy System
[I]	Bring up the Intelligence Reports screen
[L]	Bring up the Signal Intelligence reports
[M]	View Game Credits
[N]	Bring up the List All Naval Air Units screen
[O]	Bring up the Operational Report screen
[P]	Bring up the Preference and Options screen
[Q]	Quit game
[R]	Toggles colored rail/road/trail networks on/off
[S]	Bring up the List All Ships screen
[T]	Bring up the List All Task Forces screen
[V]	View Ship Database
[Z]	Display the Control Zone Map
[1]	Toggles zone terrain text in each hex on the Tactical Map
[2]	Toggles zone location text in each hex on the Tactical Map
[3]	Toggles hex weather forecast
[Ctrl] [A]	Show the Large Strategic Map
[Ctrl] [J]	Toggles the Jump Map on or off in the full screen map mode
[?]	Orders selected unit to return to its Home Base

## 2.3 MAIN GAME MENU



This is where *War in the Pacific - The Struggle Against Japan, 1941-45™* begins and where all of your important game-defining decisions will be made (although some can be changed in game). From here, all game parameters are defined including the selection of sides, various realism options, and display preferences.

The options available on this screen are:

### Gamestyle Options (select one of the five following toggle switches)

- **Japanese Computer** – play as the Allies against a Japanese computer opponent
- **Allied Computer** – play as the Japanese against an Allied computer opponent
- **Both Computer** – observe the computer take both the Japanese and Allied sides
- **Head to Head** – play a two-player hotseat game
- **Play By E-mail** – play a game via e-mail

Note: To select a Gamestyle Option, click on the text and the dial will turn to indicate your selection.

### Game Parameter Options

- **Realism Options** – select different rules affecting gameplay (section 2.4)
- **Game Options** – select different options affecting the game's display (section 2.5)
- **Preferences** – select different options regarding message delay, sound volume, and map appearance (section 2.6)

## Miscellaneous Options

- **Scenario Selection** – select to choose a scenario to play
- **Load a Saved Game** – select to load a previously saved game
- **Exit Game** – This toggle switch will, when clicked, exit *War in the Pacific - The Struggle Against Japan, 1941-45™* and return you to your desktop

## 2.4 REALISM OPTIONS SCREEN



From here, select various rules that will affect the play balance of the game. Select an option by clicking on the toggle and turning its status light (to the right of the switch) green. If the status light is red, that option is **not** selected.

**All options can be changed in-game (except during PBEM games) from the tool bar by clicking the Preferences and Options button.**

The options are:

- **Japanese Sub Doctrine** (section 2.4.1)
- **Fog of War** (section 2.4.2)
- **Advanced Weather Effects** (section 2.4.3)
- **Allied Damage Control** (section 2.4.4)
- **Historical First Turn** (section 2.4.5)
- **Vary Setup** (section 2.4.6)
- **December 7th Surprise** (section 2.4.7)
- **Reinforcement – Allied or Japanese** (section 2.4.8)

## 2.4.1 Japanese Sub Doctrine

*"The Japanese policy was to use submarines primarily for attacking enemy naval forces. Merchant ships were legitimate targets only when there were no warships to be considered."*  
-Mochitsura Hashimoto, Japanese Submarine Commander

The Japanese Sixth Fleet (their submarine forces) was trained from before the War to engage only warships. Japanese submarine commanders also had a strict torpedo expenditure rule that allowed only a certain number of torpedoes to be expended per ship type; enemy battleships and aircraft carriers could be fired on until out of torpedoes, while cruisers were allowed up to three torpedoes each. However, merchantmen, destroyers, and other similarly small vessels only were allowed one torpedo each, and were usually ignored in favor of the larger, more powerful enemy vessels. This strict policy was adhered to even into the waning days of the war.

If this switch is turned on, Japanese submarine captains will very seldom attack cargo ships, transports, and other smaller vessels, in accordance with their rigid training. If turned off, they will attack any kind of vessel as opportunities present themselves, including merchantmen.

## 2.4.2 Fog of War

*"Unless more efforts based upon long-range planning are put into military preparations and operations, it will be very hard to win the final victory."*  
- Admiral Isoroku Yamamoto, Commander in Chief of the Japanese Navy

This switch controls the amount of information that either side can receive regarding the enemy. Historically, the commanders relied on spotty and often incomplete information to base their strike decisions on. In *War in the Pacific - The Struggle Against Japan, 1941-45™*, the player may select whether they wish to place themselves more fully in the same shoes as their historical counterparts.

When turned on, both players will receive incomplete or faulty messages and reports concerning enemy ship, troop, and air group damage, as well as limited data on enemy bases. If left off, all enemy units will be visible on the map at all times.

## 2.4.3 Advanced Weather Effects

When Advanced Weather Effects are not in use, the weather forecasts will always be clear on turn 1 and partly cloudy thereafter. This will result in generally better weather. When Advanced Weather Effects are on, the weather forecasts will have greater variability and generally result in worse weather. Forecasts impact the actual weather in the hex, but any particular hex can have very bad weather even when the forecast is clear.

For more information on Weather, refer to Section 12.0.

## 2.4.4 Allied Damage Control

*...fire was reported in #9 fireroom...All lights were extinguished. Boilers #8 and #9 were secured and, because personnel were being overcome by gasses, firerooms were abandoned. Distant controls were operated to secure blowers...To a question by the Commanding Officer...[w]hen*

*asked if the ship should slow, the answer was, "Hell no! We'll make it!" and at no time did the speed drop below 24 knots until signalled from the bridge.*

*-From the USS Yorktown's Action Report (CV5/A16-S/(CCR-10-hjs)), May 25, 1942*

This switch toggles if superior Allied damage control is factored into the combat and repair routines. If toggled on, Allied ships will repair damage more rapidly than Japanese ships.

## 2.4.5 Historical First Turn

This option gives the player a chance to start a game by immersing themselves into the historical strategies selected by both sides for the forthcoming scenario chosen. With this option selected:

- A human playing against the computer will *not* be able to issue orders on Turn One.
- Neither player in a head-to-head (i.e., two human player) game will be able to issue orders on Turn One.
- Neither player in a PBEM game (i.e., two human player) game will be able to issue orders on Turn One. Essentially, *each* player's *first* turn is going to be skipped after entering their password, with the player being asked to save the game immediately. After both players have done this once, the second turn will begin by allowing the first player to enter orders after seeing the first turn's execution phase.
- In a computer-versus-computer game, the player *will* be able to issue orders on Turn One, if the player desires to.

## 2.4.6 Variable Turn One (Vary Setup)

If this option is selected along with Historical First Turn (section 2.4.5), and either scenario 8 (First Year, 7 Dec 41 – 31 Dec 42) or scenario 15 (The War in the Pacific) is selected, the game will have one of four possible random openings:

- **OPERATION OUTFIELD:** If this random opening occurs, Kimmel sends forces to Midway, Johnston Island, and Wake Island. These include ships and air groups. Some Allied submarines are repositioned. There is a very good chance that all groups and anti-aircraft batteries are put on alert, *even if the December 7th surprise option has been selected*. The idea is that Kimmel has taken the dispatches from Washington seriously and is spreading a force umbrella to protect the Hawaiian Islands. Due to the odd, out of the way path the Japanese take to Pearl Harbor, this is unlikely to work. Still, some forces begin the game in different places. In addition, there are some dispersal of Allied air groups in the Central Pacific, Philippines, and Malay.
- **OPERATION INFIELD:** If this random opening occurs, Kimmel forms a surface fleet which he keeps in the Pearl Harbor area and brings both Carrier Task Forces close to home port. Some air groups are repositioned and put on alert. Some Allied submarines may be repositioned. In addition, there are some dispersal of Allied air groups in the Central Pacific, Philippines, and Malay. This opening usually produces a fierce carrier battle on turn one near Pearl Harbor.
- **OPERATION HOME PLATE:** If this random opening occurs, Kimmel assumes the safer course to be pulling all Task Forces into port. Surprise is likely, and the Japanese are happy to find two American carriers in port, when they launch their attack.



- **DECEMBER 7th SURPRISE:** If this random opening occurs, the standard turn one is played.

## 2.4.7 December 7th Surprise

If the player selects a scenario that begins on December 7th, 1941, this option may be selected. When chosen, during the Morning Phase **only on December 7, 1941**, the following occurs to represent Allied surprise:

- Allied air units flying patrols (CAP, search, etc.) have a 50% chance of not flying any aircraft
- If an air group passes this test and elects to fly, the number of aircraft that will fly is reduced by 75%
- The Allies will launch no airstrikes
- Japanese Naval TFs move at twenty times their normal speed to reach their destinations
- Aircraft making a port attack during any December 7 phase will attack ships 100 percent of the time if there are at least 10 ships in the port
- Aircraft hit on any Allied airfields suffer increased damage
- Japanese ships on Turn 1 will not use more than 3 hexes of fuel, representing their tanker support
- Japanese Fast Transport TFs do not receive a bonus movement rate on Turn 1

## 2.4.8 Reinforcement (Allied/Japanese)

This determines when reinforcements for each side appear in the Pacific Theater. The options include:

- Fixed
- Variable (randomizes the appearance of troops, ships, and air groups; Variable reinforcements appear at plus or minus 15 days from their normal fixed appearance date)
- Extremely Variable (like the Variable option, except there's even more randomizing factors; these can vary in appearance up to plus or minus 60 days)

## 2.5 GAME OPTIONS SCREEN



From here, select various rules that will affect the various in-game reports and displays. Select an option by clicking on the toggle and turning it's status light (to the right of the switch) green. If the status light is red, that option is **not** selected.

**All options can be changed in a game (except during PBEM games) from the tool bar.**

The options are:

- **Combat Reports** (section 2.5.1)
- **Auto Sub Ops** (section 2.5.2)
- **TF Move Radius** (section 2.5.3)
- **Plane Move Radius** (section 2.5.4)
- **Set All Facilities To Expand At Start** (section 2.5.5)
- **Automatic Upgrade for Air Groups** (section 2.5.6)
- **Accept Air and Ground Replacements** (section 2.5.7)
- **Turn Cycle** (section 2.5.8)
- **AI Difficulty** (section 2.5.9)
- **Main Menu** – return to the main game menu (section 2.3)

### 2.5.1 Combat Reports

This switch toggles whether the combat report is created. If switched off, there will be no report created.

## 2.5.2 Auto Sub Ops

The Auto Sub Ops switch toggles whether the artificial intelligence that controls operations for the player will automatically send out submarine patrols, during the game. The player may still choose to change control of these submarines from computer to human at any time. The computer will consider using bases with a port size of at least 8 or an AS at the base, and a minimum of 10000 fuel points on hand as potential sub bases. This option can be changed while playing the game, from the tool bar.

## 2.5.3 TF Move Radius

The TF Move Radius switch toggles whether range circles appear on the game map around the selected task force. If toggled on, a green circle will appear around the task force indicating the maximum distance the task force will be able to travel at cruising speed during that turn and a yellow one for the maximum distance at flank speed. This can be toggled playing the game by pressing the F4 key.

## 2.5.4 Plane Move Radius

The Plane Range Radius switch toggles whether range circles appear on the game map around a selected air group. If toggled on, a black circle will appear around the air group indicating maximum range for normal operations, and a red for one indicating extended maximum range for operations. This can be toggled while playing the game by pressing the F3 key.

## 2.5.5 Set All Facilities To Expand At Start

When selected, this option will tell all of the player's factories to begin expanding their facilities. While this will be a boon down the road, for the moment it will require a tremendous amount of supplies. If this option is not selected, the player will have to manually select this option for each factory they want to expand.

## 2.5.6 Automatic Upgrade for Air Units

When selected, the player's air units will automatically look for replacement aircraft from the Replacement Pool to replace their aircraft (replacing outdated or inferior equipment). While this will ensure that air squadrons are up to date with the latest designs, it will, like Set All Facilities To Expand at Start, the number of planes in the Replacement Pool will be reduced. If not selected, each squadron will need to be ordered individually whether or not to accept updated equipment.

## 2.5.7 Accept Air and Ground Replacements

When selected, the player's air and ground units will automatically accept any applicable items to fill out their rosters if they are missing any or have lost any in combat. This will ensure that all your units will do their best to remain filled to capacity (based on available supply), but will not give you control over what units you want filled out first. Sometimes there may be a need to ensure that certain units fill up their ranks first before others; if this option is selected all units will have equal opportunity to do so. If this option is not selected, the player will need to order their air and ground units individually to accept replacements.

## 2.5.8 Turn Cycle

The Turn Cycle selection arrows choose how many days each turn is. The options are 1 to 3 days or continuous. Pressing the F9 key will suspend execution of combat resolution at the beginning of the next day and return the player to the orders screen. This can be changed while playing the game, from the tool bar, except in PBEM games.

A *War in the Pacific - The Struggle Against Japan, 1941-45™* turn can consist of from one to seven days of combat, with the exact number set in the Game Options Menu (this is called the "turn cycle" or "turn length"). You can set the length of each turn in days (i.e. the number of days the game will progress before it kicks into the Orders Phase). This number, in the Game Options Menu, is set to one to seven days, or it can be set to Continuous Play (C). The Turn Cycle cannot be set to continuous play for an email game, nor may it be changed in the middle of an email game.

If the Turn Cycle is set for other than one day, Night and Day Resolution Phases will repeat until the number of days resolved equals the current Turn Cycle setting (however, there is no night turn during the first turn of all scenarios). Then, the game will begin a new turn. No matter what turn length is selected, the game progresses through time by completing successive Night and Day Resolution Phases. Turn length simply determines how many resolution phases will be completed before entering the next Orders Phase. While the Day and Night Resolution Phases are mostly identical (task forces move each phase, for example), ground combat and certain supply operations only occur in the Day Resolution Phase.

### 2.5.8.1 Continuous Play

If the Continuous Play option is selected for the Turn Cycle, at game start the players (human and AI) issue orders during their Orders Phases. The system then executes all orders simultaneously during the Day and Night Resolution phases. The game will continue to progress without stopping until a player interrupts the game (by pressing **F9**). When interrupted, the system finishes the current day's Day Resolution Phase and then starts the Orders Phases. This mode allows the player to quickly resolve a period of many days when nothing important is happening (which can be particularly convenient during a campaign game). Computer vs. Computer games are automatically Continuous Play-type games.

## 2.5.9 AI Difficulty

The AI Difficulty selection arrows allow the player to extend an advantage to the computer opponent. The options are:

- **Easy** – Human player is given some advantages.
- **Historical (default)** – Play is balanced with no advantages given to either side.
- **Hard** – Computer is given some logistical advantages.
- **Very Hard** – Computer is given some logistical and combat advantages.

After playing one or two games, experienced *War in the Pacific - The Struggle Against Japan, 1941-45™* (or *Uncommon Valor*) players should play at the Hard level of difficulty.

## 2.6 PREFERENCES MENU



From here, you may further customize your game by setting delays and map details. Select an option by clicking on the toggle and turning its status light (to the right of the switch) green. If the status light is red, that option is **not** selected.

**All options can be changed in-game (except during PBEM games) from the tool bar.**

The options are:

- **Map Style** (section 2.6.1)
- **Hexside Details** (section 2.6.2)
- **Map Scroll Delay** (section 2.6.3)
- **Message Delay** (section 2.6.4)
- **Air to Air Delay** (section 2.6.4)
- **Air to Ground Delay** (section 2.6.4)
- **Air to Naval Delay** (section 2.6.4)
- **Naval vs Naval Delay** (section 2.6.4)
- **Sub vs Naval Delay** (section 2.6.4)
- **Troop vs Troop Delay** (section 2.6.4)
- **Bombardment Delay** (section 2.6.4)
- **Show Combat Animations** (section 2.6.5)
- **Show Combat Summaries** (section 2.6.6)
- **Show Clouds** (section 2.6.7)
- **Main Volume** (section 2.6.8)
- **Music Volume** (section 2.6.8)
- **Background FX** (section 2.6.8)
- **Unit Sound FX** (section 2.6.8)
- **Main Menu** – return to the main game menu (section 2.3)

## 2.6.1 Map Style

The player should flip the switch in the direction of their desired choice:

- If the switch is flipped up, the map will display **with hexes**.
- If the switch is flipped down, the map will display **without hexes**.

With hexes displayed, it becomes easier to distinguish distance and location.

## 2.6.2 Hexside Details

This determines whether or not hex details (showing impassible hexsides, for example) appear on the map. This option can be toggled while playing the game by pressing the F6 key and is useful for determining ranges in hexes if the Map Style switch is set to **Without Hexes** (section 2.6.1).

## 2.6.3 Map Scroll Delay

This setting determines the speed at which the map scrolls. This is useful for slowing down the scroll rate for extremely fast computers.

## 2.6.4 Delay Settings

The other delay values refer to the length of pause for the user to read the messages or watch the animations for the appropriate events.

## 2.6.5 Show Combat Animations

When selected, each battle will be displayed with an animated display. This display will be accompanied by text describing the results of the action taking place. Depending on the delay settings chosen in this section, the messages may appear very quickly or the player may delay them so as to have time to read them all. If this option is not selected, the game's length will be lessened by a large degree as the player will not have to wait for battles to fight themselves out.

## 2.6.6 Show Combat Summaries

When selected, after each battle a short summary of the battle will be displayed showing the composition of the participants, any losses or damage suffered by either side (depending on your Fog of War settings, your reports of enemy losses may be exaggerated or false), and the overall results of the battle (e.g., if ships were damaged or sunk during a Naval Attack Mission).

## 2.6.7 Show Clouds

When selected, the Tactical Map (the main game display) will show clouds. If not selected, the player's map will appear weather-free but will still suffer the effects of weather good and bad.

## 2.6.8 Volume and FX

These values determine how loud the general sound, music, and sound effects (FX) are.

# WAR IN THE PACIFIC

*The Struggle Against Japan 1941 - 1945™*

## 2.7 BEGIN A NEW GAME

To begin a new scenario, click **Scenario Selection** in the Main Game Menu screen. The **Scenario Menu** screen will appear.



In this screen, two columns appear. The left-hand column lists all scenarios in the game, while the right-hand column shows an overview of the currently selected scenario. Click on a scenario at left to view the description on the right. To play a scenario, select it from the list at left and then click **Select Scenario**. The **Scenario Details Menu** screen will appear.



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Click the **Historical Briefing** button to bring up a brief synopsis of how the selected battle went for the player's historical counterparts. The **Scenario Menu** button will bring the player back to the **Scenario Selection** screen, where another scenario may be selected. Click **Start Game** to play the scenario.



## 2.7.1 A Note on Play-by-Email (PBEM) Games

When playing a PBEM game, both players will be prompted to create passwords. The Japanese player then plots his orders and ends the turn. The program will ask him to save the game, which he then e-mails to the Allied player (it is strongly recommended to first zip the file). The Allied player loads the game, enters his orders and, when prompted, saves the game and e-mails it back. When the Japanese player loads the file, the turn will automatically execute and create a combat replay file in Save Game slot 1.

**If starting a PBEM game with variable reinforcement times selected, neither player will be able to view their reinforcements in their Intel screen on their first turn.**

Again, the Japanese player plots his orders, ends the turn, saves the game and e-mails it to the Allied player. In this case the Japanese player must send both the save file and the combat replay file to the Allied player. The Allied player can then first load the combat replay file and view the execution phase from the previous turn before loading in the save game file and entering the new Orders Phase. These steps are repeated each turn. At the end of a PBEM game, the Japanese player will need to send his password to the Allied player so the Allied player can load the final save file, view the final execution phase and view the final victory score and end game status.



## 3.0 SEQUENCE OF PLAY

*"Before Guadalcanal the enemy advanced at his pleasure. After Guadalcanal he retreated at ours."*  
- Admiral William F. "Bull" Halsey, Commander – South Pacific

*War in the Pacific - The Struggle Against Japan, 1941-45™* unfolds over a series of game turns; each turn represents a certain number of days (as specified by the **Turn Cycle** option in the **Game Options** screen). The sequence starts with the Japanese issuing orders, followed by the Allies, and then a resolution of those orders carried out over subsequent Night and Day phases.

**The number of Night and Day Resolution Phases that are resolved depends on the number of days specified by the Turn Cycle option.**

The sequence is as follows:

- 1) **Japanese Orders Phase** - The Japanese player views the map and gives orders to his units. Air units may be instantaneously transferred between bases if the destination is within the air unit's maximum range.
- 2) **Allied Orders Phase** - The Allied player views the map and gives orders to his units. Air units may be instantaneously transferred between bases if the destination is within the air unit's maximum range.
- 3) **Night Resolution Phase** – The system processes all orders, which are resolved over a night period of 12 hours.

**This Phase is resolved by the computer and requires little interactivity. This list is given to give the player a general idea of what happens when.**

- a) **Load/Unload** - Transport Task Forces load and unload cargos. (Section 6.1.19)
- b) **Coastwatcher Check and Trigger Reactions** - Coastwatchers attempt to sight enemy Task Forces. Task Forces that have "React to Enemy" movement orders this turn receive their new destinations. (Section 8.7)
- c) **Auto Minesweeping** - Automated Minesweeping Task Forces (those set on computer control) conduct minesweeping operations. (Section 6.1.26)
- d) **Naval Movement** - Task Forces move towards their destinations. Ships expend endurance points, check for system damage due to being at sea, and conduct mine warfare operations (including being attacked by mines). (Section 6.1.26.4)
- e) **Night Air Operations\*** - All air movement and combat is resolved. (Section 7.2)
- f) **Surface Combat** - Ship vs. ship surface combat is resolved. (Section 6.1.25.1)
- g) **Naval Bombardment** - Naval bombardments of bases and ground units are resolved. (Section 6.1.25.2)
- h) **Ground Unit Movement** - Ground units move toward their destinations. (Section 8.3)
- i) **Repair Ships** - Ships undergo repair. (Section 13.4)
- j) **Base Repair/Construction** - Base repair and construction occur, along with construction of fortifications at bases. (Section 9.4.2)
- k) **Supply Needs Calculation and Overland Supply Movement** - The supply needs of all units and bases are calculated and automatic overland movement of supplies occurs. (Section 14.0)

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- l) **Task Force Adjustment** - Crippled ships are automatically detached into their own Task Forces. Certain Task Forces have their destinations set so that they will return to base. (Section 6.1)

\* This sub-phase occurs only during the Night Resolution Phase.

- 4) **Day Resolution Phase** - The system continues to process all orders, which are resolved over a day period of 12 hours.

**This Phase is resolved by the computer and requires little interactivity. This list is given to give the player a general idea of what happens when.**

- a) **Load/Unload** - Transport Task Forces load and unload cargos. (Section 6.1.19)
- b) **Coastwatcher Check and Trigger Reactions** - Coastwatchers attempt to sight enemy Task Forces. Task Forces that have "react to enemy" movement orders this turn receive their new destinations. (Section 8.7)
- c) **Auto Minesweeping** - Automated Minesweeping Task Forces (those set on computer control) conduct minesweeping operations. (Section 6.1.26)
- d) **Naval Movement** - Task Forces move towards their destinations. Ships expend endurance, check for system damage due to being at sea, and conduct mine warfare operations (including being attacked by mines). (Section 6.1.26.4)
- e) **Day Air Operations\*\*** - All air movement and combat is resolved (see Air Ops for additional detail in section 7.2)
- f) **Surface Combat** - Ship vs. ship surface combat is resolved. (Section 6.1.25.1)
- g) **Naval Bombardment** - Naval bombardments of bases and ground units are resolved. (Section 6.1.25.2)
- h) **Ground Combat\*\*** - Combat between ground units is resolved. (Section 6.1)
- i) **Ground Movement** - Ground units move toward their destinations. (Section 8.3)
- j) **Repair Ships** - Ships undergo repair. (Section 13.4)
- k) **Base Construction and Repair** - Bases are built, repaired and fortified. (Section 9.4.2)
- l) **Supply Needs Calculation and Overland Supply Movement** - The Supply needs of all units and bases are calculated and automatic overland movement of supplies occurs. (Section 14.0)
- m) **Supply Operations\*\*** - Supply Operations are conducted including supplying ground and air units and repairing planes. (Section 14.0)
- n) **Task Force Adjustment** - Crippled ships are automatically detached into their own Task Forces. Certain Task Forces have their destinations set so that they will return to base. (Section 6.1)

**\*\* This sub-phase occurs only during the Day Resolution Phase.**

Several times during both the Night and Day Resolution Phases, the computer checks for submarine contacts and submarine attacks. The computer also checks ships with fire or flotation damage for an increase/decrease in the fire or flotation level and for any additional damage caused by the fire or flooding.

## 4.0 THE MAIN DISPLAY

*"We have resolved to endure the unendurable and suffer what is insufferable."*  
- Emperor Hirohito

### 4.1 THE MENU BAR

Many of the commands you issue will be given by clicking on the Menu Bar buttons at the top of the Tactical Map. Alongside the Menu Bar is listed the current player, weather forecast for the current hex, date, and coordinate for the currently selected hex. The Menu Bar buttons include (from left to right):



Following is an explanation of each button:



Save game



Choose preferences and options (note that some options are frozen during the game)



View Aircraft Database



View Ship Database



View Intelligence Reports



List all bases for the Allied player (note: for the Japanese player, this is a red circle)



List all land based air units



List all naval air units



List all land units

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List all active ships



List all task forces



Show the Control Zone Map



Show the Auto Convoy system



Show the Large Strategic Map



Display Combat Report



Display Operational Report



Display the Signal Intelligence Report



Display the Weather Report



End Orders Phase



Recenters the Tactical Map on the player's Home Base (in full map scenarios for the Allies, this will alternate between San Francisco and Pearl Harbor, if repeatedly pressed)



Game Team Credits



Exit Game

## 4.2 THE MAP



*War in the Pacific - The Struggle Against Japan, 1941-45™*'s map is divided into hexagons (hexes), at a scale of 60 miles per hex. There are several types of hexes:



**Clear:** Areas of open terrain, with excellent visibility and few places to hide.

**Mountains:** Areas of steep, high terrain that is impassible to mechanized units and nearly impassible to foot units.

**Forest/Jungle:** Areas of heavy foliage and nearly impassible terrain; this includes most of the terrain you'll be fighting over.

**Desert:** Arid, hot, and inhospitable, in game terms these hexes are relatively easy to traverse. Desert hexes are therefore the same as Clear hexes for the purposes of movement.

**Cultivated:** Represents farms and other rural-type terrain. Units treat these hexes like Clear for movement purposes. These areas are assumed to have trails going out in all directions.

**Urban:** Cities and towns that are relatively easy to move through. Urban hexes are treated like Clear terrain.

**Swamp:** Areas of thick marshland and wetlands, they hinder movement greatly.

**Atoll:** Can have a dramatic affect on combat as any attacker assaulting an enemy-held Atoll will suffer higher casualties.

# GAME MANUAL

---

**Ocean:** Both light (Shallow Water) and dark blue (Deep Water) hexes, representing the vast area covered by the vast Pacific and Indian Oceans as well as the numerous smaller seas and other bodies of water.

**Shallow Water** and **Deep Water:** The only difference between these two is with regards to submarines and mines: submarines are easier to detect in Shallow Water than Deep Water, and mines disperse faster in Deep Water than in Shallow Water.

**Rail/Highway:** Improved, paved roads and railroads, which are the best way for ground units to move around.

**Road:** Smaller roads. Still a much faster way to move than cross country.

**Trail:** Utilitarian movement routes, ranging from poor goat paths to rudimentary unpaved roads. Unit movement is faster down these than through the jungle or over the mountains.

**Note:** Any hex containing both land *and* ocean is considered to be a coastal hex. For purposes of unloading ships, these hexes are referred to throughout the manuals as „beaches.“

**Coral Reef:** Areas of built up coral that hinder naval movement. Coral Reefs are impassable hexsides meaning no unit may cross.

**River:** Winding bodies of water that are usually difficult to pass over if doing so in the face of the enemy. These hexsides will add disruption to troops crossing them into enemy occupied hexes.

Hexsides are normally black, but you can toggle Colored Hexsides off and on in the Preferences Menu or with the **F6** key. Colored hexsides comprise five colors:

- Blue** = Ocean/Lake hexside - Naval unit movement only
- Dark Blue** = River hexside - Ground unit movement only
- Green** = Ground unit movement only
- White** = Both Naval and Ground unit movement
- Red** = Impassable hexside - No Naval or Ground unit movement

See section 8.3 for the impact of terrain on ground movement.

**Bases:** Bases are marked by an Allied (either Russian, Chinese, Commonwealth, Dutch, or American) or Japanese base symbol (refer to Section **4.2.5 Map Icons** for the specific associated map symbol), or as potential bases by a dot in a land hex. Only hexes with one of these symbols can ever contain a base. No more than one base can be in any hex, although the base may contain both a port and an airfield. Bases are always controlled either by the Allies or Japanese. Potential bases can be built up by either side that owns it.

Friendly units appear on the map, as well as minefields and any enemy units that have been detected. However, unspotted enemy units won't appear until detected, and depending on the Fog of War setting specified, even when spotted information may prove erroneous or utterly false.

To scroll around the map, drag the mouse pointer in any direction and the Tactical Map will shift with it. Or, click anywhere on the Strategic map in the lower right corner and the map will center on that spot.

## 4.2.1 Control Zones and Human versus Computer Control of Units



The maps in full-map scenarios, which cover the entire campaign area from the west coast of India to the west coast of the United States, are divided into nine Control Zones. To bring up the display, either press the **Show Control Zones** button at the top of the screen or press **Z**.

In each Zone, the player may choose to allow the computer AI to run their campaigning by clicking on the text immediately below the area's designation. For example:



In the left screenshot, the East (E) Control Zone is currently under Human control – meaning the player has control over all the units present in that Zone. By clicking on the „Human Control“ text, it will switch over to Computer Control. Clicking on it again will revert control back to the human player.

Toggling on regional status computer control allows the artificial intelligence to control that region, using all assets found in the region, towards its own ends and in its own fashion.

This can be useful in a one player game, if the player wants to control, say, the British in the India area, while allowing the computer to play the Americans elsewhere

Each asset (ground unit, air unit, ship, etc.) in a given region under computer control can be placed under human control. To do so, the player will need to select the asset and change its control to **Human**. The asset orders screen will have a line of text which shows the region in which the asset is located and who controls it, either the region (computer) or the human.

Please note that assets in a region controlled by the human cannot be placed under computer control. If an asset under computer control finds itself in a region other than that of the region controlling it, the artificial intelligence will not know how to find or use it (so, if you load up an infantry battalion in the East region and haul it to the West region, the East commander will not have control over it, nor will the West commander). **This means that a player moving assets from one region to another should place them under Human control, then move them, then place them under Computer control again, once the new region is reached.**

To ease difficulty of play, when an asset is toggled from Computer to Human control or vice versa, all assets it controls are also toggled. So, if the player place the East region under computer control, all groups, land based units, task forces and ships (assets) are switched to Computer control. If within that region the player then toggles a base to human control, all assets found at that base will automatically be toggled as well. If a ship or Task Force are toggled, all aircraft located on the ships are also toggled.

## TASK FORCES

A TF created and placed on the map by the AI will be shown to be under Computer Control (this is indicated directly under the TF picture on the TF orders screen – note that a computer generated auto convoy TF may have the text say Auto Convoy instead of Computer Control). A TF can be placed under Human or Computer control using the following criteria:

- 1) Computer generated auto convoy TFs can be placed under Human control. When this occurs, all air units in the TF should also change to Human control. Once human controlled, they can never be toggled back to auto convoy, but can be toggled to Continuous Supply if they have a destination.
- 2) Computer generated surface Transport TFs can be placed under Human control. When this occurs, all air units in the TF should also change to Human control. Once under Human control, it can be toggled between Human control and Continuous Supply (CS:Destination) if they have a destination (only Transport TFs, currently there is a known bug that Replenishment and Fast Transport TFs can be set to CS). Continuous supply air units are under computer control.
- 3) Computer generated surface non-Transport TFs can be placed under Human control. When this occurs, all air units in the TF also change to Human control.
- 4) Human controlled surface Transport TFs (only Transport, currently there is a known bug that Replenishment and Fast Transport TFs can be set to CS) can be toggled between human control and continuous supply. Continuous supply TF air units are under computer control.
- 5) Human controlled surface non-Transport TFs (always remain under human control. In these TF all air units are under human control.
- 6) Human and Computer controlled submarine TFs can be toggled between human control and computer control. In computer controlled TFs, all air units are under



computer control. When under human control, all air units are also under human control. This air unit issue is probably moot, as I don't think we currently have air units on subs.

## CONTROL ZONES AND BASES

Bases under computer control can automatically make computer controlled task forces; assign air targets, move troops and other such things. Air and ground assets at a base under computer control can be individually toggled to human/computer control and when toggled to human control, the artificial intelligence controlling the base should not have access to these assets.

- 1) When a Control Zone is switched to computer control on the Control Zone Map, all air units, land based units and bases located within the geographic boundaries shown on the map should immediately change to computer control. All task forces home-based at bases that switched should also change to computer control. The three exceptions to the task force switching include submarine task forces, continuous supply and automatic convoy task forces (these will not switch).
- 2) When a Control Zone is switched to human control on the Control Zone Map, all air units, land based units and bases within the geographic boundaries shown on the map should immediately change to human control. All task forces home-based at bases that switched should also change to human control. The three exceptions to the task force switching include submarine task forces, continuous supply and automatic convoy task forces.
- 3) When a base is switched to computer control on the base orders screen, all air units and land based units at the base immediately change to computer control. All task forces home-based at the base should also change to computer control. The three exceptions to the task force switching include submarine task forces, continuous supply and automatic convoy task forces. Note that bases located in Control Zones assigned human control cannot be switched to computer control, as the Control Zone has no strategic artificial intelligence.
- 4) When a base is switched to human control on the base orders screen, all air units and land based units at the base immediately change to human control. All task forces home-based at the base should also change to human control. The three exceptions to the task force switching include submarine task forces, continuous supply and automatic convoy task forces. Note that bases located in Control Zones assigned human control cannot be switched to computer control, as the Control Zone has no strategic artificial intelligence.
- 5) When a task force is switched from computer to human control on the task force orders screen, all air units in the task force should also switch. Note that task forces may never be switched from human to computer control (the Control at the bottom of the TF orders screen, not the computer control at the top under the TF painting), from the task force orders screen.
- 6) Armies and air units may be toggled from human to computer or computer to human control, if they are located at a base or in a Control Zone that has been assigned to computer control. They may not be toggled if they are located in a Control Zone assigned to human control as the Control Zone has no strategic artificial intelligence.

## SHIPS

- 1) Ships may be placed in the automatic convoy pool or removed in the auto-convoy system screen or on the ship display screen. On the latter, the phrase "Automatic Convoy:" will have a "Yes" or "No" option following it. This can be toggled. Note that any time a ship is placed in a task force by the human player, or is transferred from a base or task force by the human player, it is removed from the automatic convoy pool. Changing the Control Zone, task force or base control zone variable or computer/human control variables will not change ship pool values.

## 4.2.2 The Tactical Map



This is the basic map screen. From here all other menus can be accessed. Across the top is the Menu Bar. In the lower right corner is the Strategic Map, with the current view outlined in yellow. Clicking on a location on this map will move the large map to that area. If the scenario is a small map scenario, the small strategic map will show the boundaries of the map outlined in red.

### 4.2.2.1 Map Locations

Each hex on the map has potential to hold a base, port, airfield, ground units, ships, air units, and industry. Some of these items are displayed with an icon. For example, if a base also has a Port, an anchor symbol will appear next to the base. In the above screenshot we can see that the city of Tokyo has a port with ships at anchor (the anchor icon), an airfield with air units present (the airfield icon), and ground units present (the ground unit icon – a box with an „X“ through it). The base itself is represented by the nationality's flag in the center of the hex.



Some hexes have a dot in them, which means they are potential bases. To build there, the player must attack the hex (although the defense ability of an enemy dot is negligible), and then move an engineer unit to that hex so that construction may begin. Must attack it if opposing unit.

## 4.2.2.2 Location Pop-up Information



When the mouse cursor is moved over a map location, information will appear in a pop-up window based on the item the cursor is pointing at. If the cursor is pointing at a base, only base specific information will be displayed; likewise, pointing the cursor at a ground unit icon in the hex will bring up information on the ground unit(s) located in that hex.

Clicking on any of the icons will bring up a display specific to that type (for example, clicking the anchor icon will bring up a list of all ships at anchor, while clicking the airfield icon will bring up a list of all aircraft in that hex).

## 4.2.2.3 Hex Command Display



At the bottom of the screen is the Hex Command Display (hereafter referred to as HCD). When a hex is selected by clicking on it, all units, bases, industry, and other items located in that hex will be displayed here. Note that not all hexes have the same items, i.e. not all hexes will have industry, or air units, etcetera. Only items present will be viewable in the Hex Command Display.

In the above example, Singapore is selected. The HCD for Singapore has information present for all assets located in the hex, including the base, air units, ground units, naval TFs, and other information.

On the left side of the HCD is a list of all assets types located in the base. They are:

- List All Ships at Anchor
- See All Air Groups at this Base
- See All Task Forces in this Hex
- See All Land Based Units in this Hex
- See All Industry in this Hex



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Clicking on one of the above buttons will bring up an information screen similar in appearance to the screens that appear in section **5.2 List All...Screens**. For further information regarding explanation of these screens, refer to the following sections:

List All Ships at Anchor  
See All Air Groups at this Base

See All Task Forces in this Hex  
See All Land Based Units in this Hex  
See All Industry in this Hex

Refer to **5.2.4 All Active Ships**  
Refer to **5.2.1 Land Based Air Units**  
or **5.2.2 Naval Air Units**  
Refer to **5.2.5 All Task Forces**  
Refer to **5.2.3 Land Based Units**  
Refer to **13.0 The Production System**

The player may scroll through multiple units in the hex, if present, by clicking on the arrows next to each of the above buttons. The player may move their mouse over each of the icons in order to get a brief overview of each:



Clicking on the arrows next to **Singapore** will let the player scroll through their available bases. In the full map scenario this could take some time. If the current hex was a TF, these arrows would allow you to scroll through your side's available TFs.

The arrows next to the See All Air Groups at this Base button allows the player to scroll through all of the air units located in this hex (whether a Land hex or Sea hex). In the above screenshot, the first air unit icon (refer to **7.0 Air Units** for a full list) has a red box around it, indicating it is the selected air unit. **243 Squadron** is the name of the air unit that is currently selected. The player may bring up the Air Unit Information Screen for this squadron by either clicking on the highlighted icon or on the squadron name.

The arrows next to the See All Task Forces in this Hex button allows the player to scroll through all of the TFs located in this hex. As with air units, the currently selected TF is highlighted with a red box around its icon (refer to **6.1.1 Task Force Symbols** for a full list) and can be selected by clicking on the icon or on the TF identification (**TF 503**, which is **docked** – TFs automatically dock if located in a friendly hex with a port; if no port is present, e.g. the TF is at sea, only the name will appear here).

The arrows next to the See All Land Based Units in this Hex button allows the player to scroll through all of the land based (ground) units in this hex. If the hex contains a TF at sea with ground units loaded, this will still display. As with air units, the currently selected ground unit is highlighted with a red box around its icon (refer to **8.1 Unit Types** for a full list) and can be selected by clicking on the icon or on the ground unit's name (in this example, **Malaya Army**).

There are no arrows next to the See All Industry in this Hex button, as there is no need for it; all possible industry type icons will be displayed in the Hex Command Display. Refer to **13.0 The Production System** for more details.

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Port: 8 (9)

Airfield: 6 (6)

Supply: 29949

Fuel: 180890

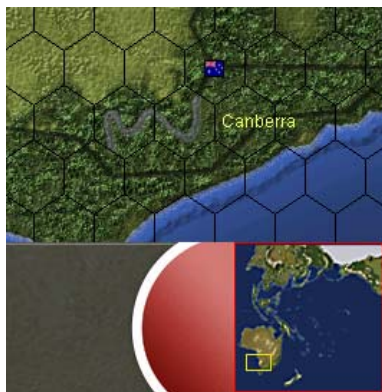
Ships in Port: 9

Aircraft: 97

Along the top of the HCD is a list of all base assets along with a number indicating a measure of that asset:

- **Port # (#)** indicates the port size (to the left of the parenthesis) and the Standard Potential Size (SPS) possible (in the parenthesis). A port can build up to the SPS at normal engineer/supply cost, but can build up to 3 over the SPS by expending extra engineers and supplies (although you can never build a size 10 port).
- **Airfield # (#)** indicates the airfield size (to the left of the parenthesis) and Standard Potential Size (SPS) possible (in the parenthesis). An airfield can build up to the SPS at normal engineer/supply cost, but can build up to 3 over the SPS by expending extra engineers and supplies (although you can never build a size 10 airfield).
- **Supply, Fuel, Ships in Port, and Aircraft** each gives a total of the appropriate asset located within the hex.

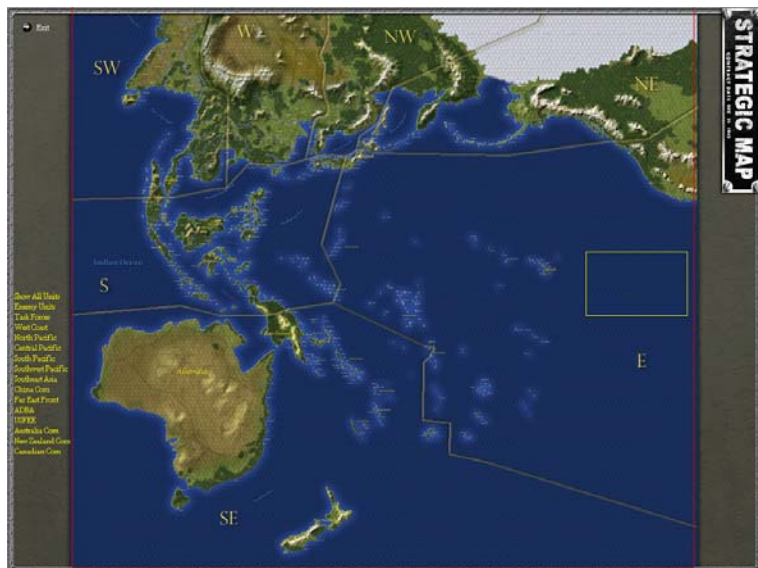
## 4.2.3 The Jump Map



In the lower right corner of the screen is a thumbnail-sized map of the Pacific Ocean. A small red-framed box denotes the play area view in the Tactical Map. A larger red-framed box will appear on this map when playing smaller scenarios, denoting the boundaries of that scenario.

To quickly access a certain part of the larger map, click on the corresponding area on the Jump Map to move the view in the Tactical Map to that new location. Or, use the arrow keys or scroll the mouse cursor to the Tactical Map's edges in order to move the map view. As the view in the Tactical Map moves, so too will the smaller red box move in the Jump Map display.

## 4.2.4 The Strategic Map



The Strategic Map can be displayed by clicking on the button in the top menu or pressing **Ctrl** and **A**. This is essentially a larger view of the Jump Map. To exit this view, either right click with your mouse or press the Escape key.

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On the left-hand side of the Strategic Map is a list of all Commands that are operating in the current Campaign. Clicking on a Command name will deselect the units on the Strategic Map that are attached to that Command. Clicking on the Command name again will redisplay the units. Use this feature to determine what Commands have units and where they are located; some units found far afield may stand being transferred to another Command by spending the appropriate number of Political Points.

## 4.2.5 Map Icons

Below are the various map icons used to designate bases and units. Note that for ground units, airfields and anchor symbols, darker colors indicate either more or stronger forces, while lighter indicate fewer or weaker units.



Allied (Russian) Base



Allied (Chinese) Base



Allied (Commonwealth) Base



Allied (England) Base



Allied (Dutch) Base



Allied (American) Base



Japanese Base



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Note that the following icons are the same whether Allied or Japanese; the only difference will be their color.



Ground Unit (ground unit icon, lower left of Base)

Ships at Anchor in Port (anchor icon, upper left of Base)

Aircraft Currently Based on Airfield (air icon, upper right of Base)

## 5.0 INFORMATION DISPLAYS

### 5.1 INTELLIGENCE DISPLAY

**INTELLIGENCE**  
CONTRACT DATE: DEC 20 1943

ALLIED	JAPANESE	SCORING
Sorties Today: 1677 Campaign: 3153	Sorties Today: 2427 Campaign: 5474	Allied Base Controlled: 294 Allied Base Points: 7436
Air-to-Air Losses Today: 18 Campaign: 49	Air-to-Air Losses Today: 1 Campaign: 7	Japanese Base Controlled: 154 Japanese Base Points: 1169
Destroyed on field Today: 4 Campaign: 214	Destroyed on field Today: 0 Campaign: 0	Allied Aircraft/Points lost: 269 Japanese Aircraft/Points lost: 34
Destroyed by Flak Today: 2 Campaign: 2	Destroyed by Flak Today: 3 Campaign: 17	Allied Army Loss Points: 379 Japanese Army Loss Points: 0
Operational Losses Today: 2 Campaign: 4	Operational Losses Today: 10 Campaign: 10	Allied Ships Sunk: 2 Points for Sunk Allied Ships: 8
British Withdrawn: None Political Points: 200 Japanese Score: 1825 Allied Score: 7470		Japanese Ships Sunk: 0 Points for Sunk Japanese Ships: 0
		Allied Strategic Losses: 0 Japanese Strategic Losses: 0

- Aircraft Losses
- Aircraft Reinforcement Schedule
- Aircraft Replacement Pool
- List Top Pilots
- Pilot Replacements
- Ships Sunk
- Ship Availability
- Ground Reinforcement Schedule
- Industry/Resource Availability
- Industry/Troops/Resource Pool

... only taskforce sighted ...

Exit



The Intelligence Screen is the most important status screen in the game, as it gives an overview of all game items. It includes:

## 5.1.1 Allied/Japanese Air Operations and Miscellaneous Information

**Allied/Japanese Sorties** – The number of sorties (Missions) flown by both sides, totalled for the current day (**Today**) and for the **Campaign**.

**Air-to-Air Losses** – Number of aircraft lost by both sides in air-to-air combat, totalled for the current day (**Today**) and for the **Campaign**.

**Destroyed on field** – Number of aircraft lost by both sides while on the ground, totalled for the current day (**Today**) and for the **Campaign**.

**Destroyed by Flak** – Number of aircraft lost by both sides from anti-aircraft guns, totalled for the current day (**Today**) and for the **Campaign**.

**British Withdraw** – Indicates if any British ships need to be withdrawn from the game (refer to **6.2 British Withdrawal** for details). This option appears for the Allied player.

**Manchukuo Garrison** (not pictured in screenshot, but for the Japanese player appears in the place of British Withdraw) – Indicates two numbers; the number to the left of the slash is the current total Assault Value of all Japanese ground units located in Manchukuo, while the number to the right of the slash (always **8000**) indicated the *minimum* Assault Value total that must be maintained in Manchukuo, or the Japanese player risks Soviet intervention (refer to section **8.6**).

**Political Points** – Indicates the player's current total of Political Points in their Political Point Pool (refer to **11.0 Political Points** for details).

**Japanese Score** – Indicates the current Victory Point (VP) level of the Japanese side (refer to **16.0 Victory Conditions** for details).

**Allied Score** – Indicates the current VP level of the Allied side (refer to **16.0 Victory Conditions** for details).

**Soviets Active/Not Active** (not pictured in screenshot, but for the Japanese player appears to the right of the Allied Score) – Indicates if the Soviets are active or inactive (refer to section **8.6**).

## 5.1.2 Scoring

**Allied/Japanese Bases Controlled** – The number of bases (in the current campaign) that are owned by either side.

**Allied/Japanese Base Points** – The number of points scored for each side from controlling their current bases. Note that some bases are worth more points than others.

**Allied/Japanese Aircraft/Points Lost** – The number of points lost from each side's scoring due to aircraft losses.

**Allied/Japanese Army Loss Points** – The number of points lost from each side's scoring due to land unit casualties.

**Allied/Japanese Ships Sunk** – The number of ships from each side that have been sunk.

**Points for Sunk Allied/Japanese Ships** – The number of points lost from each side's scoring due to ships sunk.

**Allied/Japanese Strategic Losses** – The number of Victory Points scored for damaging/destroying industry (factories, resource/oil centers, manpower) by aerial bombing (refer to **16.0 Victory Conditions** for more details).

## 5.1.3 Menu Buttons



On the right side of the Information Display are several buttons that will provide specific information for various game functions.

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## 5.1.3.1 Aircraft Losses

Aircraft Type	Today	Air-Air	Flak	Ground	Ops	Total	Air-Air	Flak	Ground	Ops
A-26E Boston	0	0	0	0	0	9	0	0	9	0
A6M2 Zero	6	1	0	0	5	8	3	0	0	5
B-17C Fortress	0	0	0	0	0	6	0	0	6	0
B-17E Fortress	0	0	0	0	0	3	0	0	3	0
B-18A Bolo	0	0	0	0	0	9	0	0	9	0
B2N Kate	0	0	0	0	0	8	2	6	0	0
Blenheim IF	1	0	0	1	0	1	0	0	1	0
Blenheim IV	0	0	0	0	0	2	0	0	2	0
Buffalo I	18	17	0	1	0	24	20	0	4	0
Catalina I	0	0	0	0	0	1	0	0	1	0
D3A Val	0	0	0	0	0	6	0	6	0	0
F4F-3 Wildcat	0	0	0	0	0	6	2	0	4	0
G3M Nell	2	0	2	0	0	6	2	4	0	0
G4M1 Betty	2	0	0	0	2	2	0	0	0	2
Hudson I	1	1	0	0	0	3	1	0	2	0
Ki-27Nate	1	0	0	0	1	1	0	0	0	1
Ki-30 Ann	1	0	0	0	1	1	0	0	0	1

All Aircraft

Allied Sorties  
Today: 1879  
Campaign: 3153

Allied Losses  
Today: 26  
Campaign: 299

Japanese Sorties  
Today: 2427  
Campaign: 3474

Japanese Losses  
Today: 14  
Campaign: 34

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Exit

The Aircraft Losses Screen displays a breakdown of all aircraft lost to date in the current campaign for the current side (playing as the Allies, for instance, will not allow you to view a list of Japanese aircraft shot down, and vice versa).

Clicking on any of the yellow column headers at the top will sort the list by that item, e.g. clicking Aircraft Type will sort the list alphabetically by aircraft type, while clicking Today will sort the list in descending order by number of planes of each type shot down on the current day. A summary of Sorties and Losses for the current day and Campaign are listed at right for reference.

## 5.1.3.2 Aircraft Reinforcement Schedule

Unit Name	Aircraft Type	Max A/C	Days Until Arrival	Airfield of Arrival
22nd IAP	I-16 Type 24	21	6 days	Ugahamenuk
VP-72	PEY Catalina	12	12 days	San Francisco
17 Squadron	Hurricane II	16	35 days	Trimcomalee
28 Squadron	Lysander I	12	35 days	Hyderabad
133 Squadron	Hurricane II	16	35 days	Karachi
232 Squadron	Hurricane II	16	35 days	Dacca
238 Squadron	Hurricane II	16	35 days	Colombo
603 Squadron	Hurricane II	16	35 days	Dacca
VP-9	PEY Catalina	12	35 days	San Diego
No. 7 RAAF Sqdn	Beaufort V-IX	16	39 days	Brisbane
VP-23	PEY Catalina	12	40 days	Pearl Harbor
248th StAD	IL-2 Shchurmovik	63	66 days	Ulan-Ude
56th IAP	I-16 Type 24	21	66 days	Irkutsk
No. 9 RANZAF Sqdn	Hudson I	16	66 days	Wellington
111 Squadron	Blenheim IV	12	66 days	Madras
113 Squadron	Blenheim IV	16	66 days	Ludlow
117 Squadron	Dakota I	16	66 days	Madras

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Exit

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The Aircraft Reinforcement Schedule lists the player's new air squadrons that are expected to be delivered in the near future. At left a list of the squadrons that are due to arrive, and information pertaining to their **Aircraft Type**, **Max A/C** (or maximum number of aircraft allowed in that squadron), **Days Until Arrival** (the number of game days that must pass before the squadron arrives), and the **Airfield of Arrival** (the location the squadron will arrive).

Along the top of this screen is a list of abbreviations. Click on each to bring up a list that pertains to that aircraft class:

<b>F</b>	Fighter
<b>FB</b>	Fighter bomber
<b>NF</b>	Night fighter
<b>DB</b>	Dive bomber
<b>LB</b>	Level bomber
<b>RC</b>	Recon aircraft
<b>TR</b>	Transport aircraft
<b>PA</b>	Patrol aircraft
<b>FP</b>	Float planes
<b>FF</b>	Float fighters
<b>TB</b>	Torpedo bombers

## 5.1.3.3 Aircraft Replacement Pool

The Aircraft Replacement Pool lists the expected aircraft replacements that are to be delivered to the player. At left is a list of aircraft types that are currently being produced by the player's industry, along with their **Engine Type**, how many of that type are currently **In Pool** and available, how many have been **Used So Far**, as well as

**Avail** (Availability) is the first date that the replacement rate will begin to deliver planes to the replacement pool (the number shown is the expected number of planes to be delivered each month). The replacement pool is assumed to be coming from "off map".

The **Production Rate** is the total monthly production rate of **all** the on board factories. Assuming they have the required factors to operate at 100%, this is the expected number of planes that will be delivered to the Replacement Pool each month.

**An aircraft factory will not produce aircraft before the availability date for the aircraft, but instead will be assumed to be researching the aircraft and may move up the availability date. Availability dates may move up, but never move back.**

Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.1.3.4 Leading Pilots

Leading Pilots									
Rank	Name	Exp	Fat	Mis	Kills	Fate	Unit	Nat	Type
FLT	Shannon S.	63	25	2	1	—	No. 433 RAAF Sqn	Australian	Buffalo I
PO	Thomas T.	66	6	1	2	—	18th FG	US Army	P-40B Tomahawk

The Leading Pilots list shows the player's side's current top pilots. As the Campaign moves on, this list will change dramatically (as in the example above, only two pilots are listed since it is only the second day of the war).

Each pilot's **Rank**, **Name**, Experience (**Exp**), Fatigue (**Fat**), number of Missions flown (**Mis**), number of **Kills** (or, air-to-air victories), their **Fate**, **Unit** assigned to, Nationality (**Nat**), and the **Type** of aircraft they're flying. Surprisingly, in our above example, a pilot flying a Buffalo I is currently the top Allied pilot. Most likely this pilot will not live long enough to see Ace status flying a Buffalo.

Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.1.3.5 Pilot Replacements

Pilot Pool/Experience and Replacement Rate

Nationality	Currently In Pool	Experience	Replacement
US Navy	203	60	60
US Army	803	55	200
US Marines	204	55	60
Australian	403	55	40
New Zealand	101	55	10
British	202	55	30
French	11	50	2
Dutch	10	50	4
Chinese	94	45	10
Soviet	402	50	20
Indian	100	50	5
Commonwealth	101	45	5
Philippines	6	45	5
Communist China	0	0	0
Canada	101	55	10

Back Exit

The Pilot Replacements Screen shows all of the pilots available to each nationality for the player's side (so, Japanese players will never see the Allied Replacements available, and vice versa).

From left to right on this list is displayed the **Nationality**, the number of pilots of that Nationality **Currently In Pool** (or, currently available), their **Experience**, and their **Replacement**, the number of new trained replacement pilots that will be added to the pool each month. See section 15.2.2 for more information on replacement pilots.

## 5.1.3.6 Sunk Ships

Sunk Ships

Type	Name	Points	Navy	Sunk By	Near
DD	Thracian	5	Allied	unknown	At Hong Kong
MSW	Penguin	3	Allied	8in/30 SYT-II Gun	At Guam

Back Exit

This list shows all ships that have been sunk by the enemy to date. From left to right, detail includes the ship **Type**, the ship's **Name**, the number of Victory **Points** the ship earned the enemy player, the nationality of the **Navy** the ship was with, what it was **Sunk By**, and where the

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ship was **Near** when it met its demise. Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.1.3.7 Ship Availability

Show	All Ships	CV/CVL	BB/BC	CA/CL	DD/DE	AP/AK	TK/AO	S	AUX	Totals:
Type	Name	ETA					Base			
CV	Yorktown	35 days	—				San Francisco			Supply: 193727
CV	Hornet	66 days	—				San Francisco			Fuel: 690080
CV	Wasp	218 days	—				San Francisco			Manpower: 325
CV	Eseer	400 days	—				San Francisco			Heavy Industry: 11160
CV	Bunker Hill	583 days	—				San Francisco			Resources: 24900 (176878)
CV	Intrepid	614 days	—				San Francisco			Oil: 3425 (162611)
CV	Franklin	705 days	—				San Francisco			Shipyards Repair: 810
CV	Hancock	948 days	—				San Francisco			Aircraft Assembly: 410 + (830 -rd)
CV	Randolph	979 days	—				San Francisco			Atomic Bombs: 0
CV	Ticonderoga	887 days	—				San Francisco			
CV	Bennington	887 days	—				San Francisco			
CV	Boss	1252 days	—				San Francisco			
CV	Bon Homme Richard	1040 days	—				San Francisco			
CV	Anihetam	1070 days	—				San Francisco			
CV	Changri-La	1009 days	—				San Francisco			
CV	Lake Champlain	1161 days	—				San Francisco			
PT Boats Available:		0								
Barges Available:		0								

This displays a list of ships that are due to be delivered to the player, including the estimated time of arrival on map and their point of entry.

From left to right is listed the **Type** of ship (or, the ship class, e.g. CV for Aircraft Carrier, DD for Destroyer, etc.), the **Name** of the ship, the Estimated Time of Arrival (ETA) measured in days, and the Base (or, location) that the ship will arrive on map at.

Along the top of the screen is a list of abbreviations. Click on each to bring up a list that pertains to that ship type:

<b>All Ships</b>	Displays all ships
<b>CV/CVL</b>	Aircraft Carriers and Light Carriers
<b>BB/BC</b>	Battleships and Battlecruisers
<b>CA/CL</b>	Heavy Cruisers and Light Cruisers
<b>DD/DE</b>	Destroyers and Destroyer Escorts
<b>TK/AO</b>	Tankers and Oilers
<b>SS</b>	Submarines
<b>AUX</b>	Auxiliary vessels

Clicking on any of the yellow column headers at the top will sort the list by that item.



## 5.1.3.8 Ground Reinforcement Schedule

Ground Unit Reinforcement Arrival Schedule						
Type	Name	Attached to	Load cost	Assault	Days Until Arrival	Port of Arrival
INF	2nd NZ Div	South Pacific	2039	351	35 days	Auckland
INF	5th NZ Bde	South Pacific	2033	117	66 days	Auckland
INF	1st PA Div	USAFPE	8488	116	10 days	Bataan
INF	2nd PA Div	USAFPE	8328	117	21 days	Bataan
HQ	36th Army	Far East Command	7200	0	1269 days	Borzya
INF	5th Australian Div	Australia Command	2039	351	83 days	Brisbane
HQ	53rd Army	Far East Command	7200	0	1269 days	Chita
HQ	14th Air Force	China Command	9600	0	519 days	Chungking
HQ	20th Air Force	China Command	9600	0	826 days	Chungking
INF	1st Chinese Cavalry Corps	China Command	19520	273	35 days	Chungking
ENG	141st Aviation Rgt	China Command	2017	0	461 days	Chungking
ENG	142nd Aviation Rgt	China Command	2017	0	614 days	Chungking
ENG	143rd Aviation Rgt	China Command	2017	0	826 days	Chungking
ENG	144th Aviation Rgt	China Command	2017	0	918 days	Chungking
ENG	141st Base Force	China Command	1716	0	461 days	Chungking
ENG	142nd Base Force	China Command	1714	0	614 days	Chungking

The Ground Reinforcement Schedule lists all ground units that are expected to be delivered in the near future. From left to right, each unit's **Type** (INF for Infantry, HQ for Headquarters, etc.), unit **Name**, which HQ it is **Attached to** when it arrives on map, what the **Load cost** is of this unit to load it on transports, the unit's **Assault** value, the number of **Days Until Arrival**, and its **Port of Arrival**.

The **Load cost**, **Port of Arrival**, and **Days Until Arrival** columns can help the player plan on having transport in that port for the day the reinforcements arrive, so that they may be immediately loaded and moved wherever needed.

Along the top of the screen is a list of ground unit types, which are not abbreviated and are self explanatory. Click on each to bring up a list that pertains to that ground unit type.

Clicking on any of the yellow column headers at the top will sort the list by that item.



## 5.1.3.9 Industry/Resource Availability

Location	Type	Amount
Bungalore	Resources	300
Bahkpapan	Manpower	1
Bahkpapan	Resources	600
Bahkpapan	Oil	300
Auckland	Repair Shipyard (30)	15
Asansol	Heavy Industry	480
Asansol	Manpower	2
Asansol	Resources	480
Amboina	Manpower	1
Amboina	Resources	10
Amboina	Oil	50
Alor Star	Resources	50
Ahmadabad	Heavy Industry	180
Ahmadabad	Manpower	13
Ahmadabad	Resources	300
Adelaide	Heavy Industry	240
Adelaide	Manpower	6
Adelaide	Resources	300

<b>Totals:</b>	
Supply:	1939727
Fuel:	6930360
Manpower:	525 (3710)
Heavy Industry:	11160
Resources:	24900 (176878)
Oil:	3425 (162811)
Naval Shipyard:	0
Merchant Shipyard:	0
Shipyard Repair:	310
Aircraft Assembly:	410 + (830 -rd)
Atomic Bombs:	0

All resource and industry locations owned by the player are listed on the Industry/Resource Availability screen. From here the player may see a list of each **Location** they own with resources and/or industry, the **Type** of resource/industry the location has, and the **Amount** of resources/industry it currently holds.

At far right is a **Totals** list that details all of the player's resources and industry. From here each asset is displayed, allowing the player to get a feel for their strengths and perhaps help guide which direction their offensive plans should go in if they are lacking in a particular item.

Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.1.3.10 Industry/Troops/Resource Pool

Name	In Pool Now	Used from Pool	Build Rate
SCR-270 Radar	1	1	30
Sound Detector (A)	1	0	40
Engineer Vehicle	7	0	100
Engineers	80	0	1200
Support	80	0	1200
Motorized Support	3	0	50
Aviation Support	40	0	600
USA Rifle Squad	4	0	71
USA Airborne Squad	1	0	11
USA Engineer Squad	0	0	9
USMC Rifle Squad	4	0	54
USMC Raider Squad	0	0	3
USMC Engineer Squad	2	0	21
ANZAC Cavalry Squad	1	0	12
ANZAC Infantry Squad	5	0	84
ANZAC Light Squad	0	0	6

Totals:

Supply: 1929727

Fuel: 6950260

Manpower: 525 (3710)

Heavy Industry: 11160

Resources: 24000 (176878)

Oil: 3425 (162811)

Naval Shipyard: 0

Merchant Shipyard: 0

Shipyard Repair: 810

Aircraft Assembly: 410 + (830-nd)

Atomic Bombs: 0

Back
Exit

All industrial items and troops are listed here. This list acts as a sister to the Industry/Resource Availability screen by detailing asset availability such as different nationality's infantry squads, radar sets, engineer squads, and motorized support.

The **Name** of the item type is listed along with the number of that item that is **In Pool Now**, the number **Used From Pool** so far in the Campaign, and its **Build Rate**.

The summary at right is the same as that found in the Industry/Resource Availability screen.

Clicking on any of the yellow column headers at the top will sort the list by that item.



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Along the top of this screen is a list of abbreviations. Click on each to bring up a list that pertains to that aircraft class:

<b>F</b>	Fighter
<b>FB</b>	Fighter bomber
<b>NF</b>	Night fighter
<b>DB</b>	Dive bomber
<b>LB</b>	Level bomber
<b>RC</b>	Recon aircraft
<b>TR</b>	Transport aircraft
<b>PA</b>	Patrol aircraft
<b>FP</b>	Float planes
<b>FF</b>	Float fighters
<b>TB</b>	Torpedo bombers

Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.2.2 Naval Air Units

All Naval Air Units										
Total aircraft ready: 330										
Show All Types: F FB NF DB LB RC TR PA FP FF TB										
Unit Name	Aircraft Model	Ready	Damaged	Reserve	Exp	Fat	Morale	Mission	Patrol	Location
1/7C3-1	30C-3 Seagull	2	0	0	61	6	61	Search	30	CL Raleigh
1/7C3-4	30C-3 Seagull	4	0	0	57	3	69	Search	30	CA Pensacola
1/7C3-5	30C-3 Seagull	4	0	0	60	6	65	Search	30	CA Northampton
1/7C3-6	30C-3 Seagull	4	0	0	61	6	57	Search	30	CA New Orleans
1/7C3-9	30C-3 Seagull	4	0	0	62	5	55	Search	30	CL St. Louis
1/7O-1	OS2U-3 Kingfisher	1	0	0	62	4	48	Search	30	EB Nevada
1/7O-2	OS2U-3 Kingfisher	2	0	0	62	3	30	Search	30	EB Tennessee
1/7O-4	OS2U-3 Kingfisher	2	0	0	61	6	61	Search	30	EB Maryland
2/7C3-1	30C-3 Seagull	2	0	0	64	6	61	Search	30	CL Detroit
2/7C3-3	30C-3 Seagull	2	0	0	62	6	62	Search	30	CL Concord
2/7C3-4	30C-3 Seagull	4	0	0	58	2	65	Search	30	CA Salt Lake City
2/7C3-5	30C-3 Seagull	4	0	0	62	6	59	Search	30	CA Chester
2/7C3-6	30C-3 Seagull	4	0	0	60	6	60	Search	30	CA Astoria
2/7C3-9	30C-3 Seagull	4	0	0	58	6	47	Search	30	CL Helena
2/7O-1	OS2U-3 Kingfisher	2	0	0	63	3	48	Search	30	EB Pennsylvania
2/7O-2	OS2U-3 Kingfisher	2	0	0	58	3	51	Search	30	EB California
2/7O-4	OS2U-3 Kingfisher	2	0	0	55	6	67	Search	30	EB Colorado

The All Naval Air Units screen lists all aircraft squadrons *based on ships*, not land airbases. This provides the player with a summary of these air assets. Information on this screen includes:

- **Unit Name** – The squadron's name. This name may be clicked on to access its Air Unit Information Screen (see 7.0 for more details).
- **Aircraft Model** – The type of aircraft the squadron is flying.
- **Ready** – Indicates the number of the squadron's aircraft that are ready to fly Missions.
- **Damaged** – Indicates the number of the squadron's aircraft that are currently damaged.
- **Reserve** – Indicates the number of aircraft that are in reserve for this squadron (these are aircraft that are used as replacements for damaged/destroyed aircraft in the squadron).
- **Exp** – The Experience level of the squadron.
- **Fat** – The squadron's current Fatigue level.
- **Morale** – The squadron's current Morale.

- **Patrol** – The squadron's current Patrol search level
- **Location** – The location of the squadron.

Along the top of this screen is a list of abbreviations. Click on each to bring up a list that pertains to that aircraft class:

<b>F</b>	Fighter
<b>FB</b>	Fighter bomber
<b>NF</b>	Night fighter
<b>DB</b>	Dive bomber
<b>LB</b>	Level bomber
<b>RC</b>	Recon aircraft
<b>TR</b>	Transport aircraft
<b>PA</b>	Patrol aircraft
<b>FP</b>	Float planes
<b>FF</b>	Float fighters
<b>TB</b>	Torpedo bombers

Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.2.3 Land Based Units

Show Allied Ground Units		All Units	HQ Units	Infantry	Armor	Artillery	Engines
Type	Name	Attached to	Load cost	Assault	Location		
INF	Zuid Garrison Bn	AEDA	1934	41	Benholen		
HQ	Y Force	China Command	4460	0	Kunming		
HQ	West Coast	West Coast	6050	0	San Francisco		
INF	West Borneo Garrison Bn	AEDA	1001	22	Pontianak		
CD	Wellington Fort	New Zealand Command	23440	46	Wellington		
INF	VII Garrison Bn	AEDA	780	18	Tarakan		
INF	VI Garrison Bn	AEDA	1119	17	Bahikpapan		
CD	Vancouver Fort	Canada Command	161880	15	Vancouver		
HQ	USAFPE	USAFPE	6250	0	Manila		
HQ	US IX Corps	West Coast	3270	0	Seattle		
HQ	US III Corps	West Coast	3220	0	San Francisco		
ENG	Trincomalee Base Force	Southeast Asia	24938	0	Trincomalee		
CD	Townsville Cd Art Rgt	Australia Command	21479	4	Townsville		
INF	Tilithup Garrison Bn	AEDA	1617	31	Tilithup		
CD	Tarakan Cd Gun Bn	AEDA	307	0	Tarakan		
INF	SVF Bde	Southeast Asia	3807	60	Kuala Lumpur		
INF	Sparrow Force Bn	Southwest Pacific	1435	32	Darwin		
HQ	Southwest Pacific	Southwest Pacific	6490	0	Brisbane		

The Show Allied Ground Units screen details a list of all ground units currently under the player's control, providing a summary of these assets. Information on this screen includes:

- **Type** – The type of ground unit (INF for Infantry, HQ for Headquarters, etc.)
- **Name** – The name of the ground unit.
- **Attached To** – The name of the command that the unit is attached to.
- **Load cost** – The amount of space that the unit would take up on a transport.
- **Assault** – The assault value of the unit.
- **Location** – The unit's current location.

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Along the top of the screen is a list of ground unit types, which are not abbreviated and are self explanatory. Click on each to bring up a list that pertains to that ground unit type.

Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.2.4 All Active Ships

Active Ships														
Type	Name	Endurance	Speed	Ops	Cap	Sys	Flt	Fires	Sup	Fuel	Troops	Location		
AD	Black Hawk	2000	13	0	0	0	0	0	-	-	none	Bahigapan		
AD	Dobbin	2000	13	0	0	0	0	0	-	-	none	Pearl Harbor		
AD	Whitney	2000	13	0	0	0	0	0	-	-	none	Pearl Harbor		
AD	Dodge	2000	18	0	0	0	0	0	-	-	none	San Francisco		
AE	Lassen	2000	15	0	2000	0	0	0	-	-	none	San Francisco		
AE	Pyro	2000	14	0	2000	0	0	0	-	-	none	Pearl Harbor		
AK	Mauna Loa	2000	12	0	7000	0	0	0	-	-	none	Pearl Harbor		
AK	Barwon	1300	12	0	4300	0	0	0	-	-	none	Brisbane		
AK	Adalong	1300	12	0	4300	0	0	0	-	-	none	Brisbane		
AK	Rhesus	1300	12	0	4300	0	0	0	-	-	none	Brisbane		
AK	Mildura	1300	12	0	4300	0	0	0	-	-	none	Melbourne		
AK	Mungana	1300	12	0	4300	0	0	0	-	-	none	Melbourne		
AK	Murda	1300	12	0	4300	0	0	0	-	-	none	Brisbane		
AK	Demodocus	2000	12	0	7000	0	0	0	-	-	none	Brisbane		
AK	Dioned	2000	12	0	7000	0	0	0	-	-	none	Melbourne		
AK	Asphalon	1300	12	0	4300	0	0	0	-	-	none	Melbourne		
AK	Mcmeness	1300	12	0	4300	0	0	0	-	-	none	Brisbane		
AK	Lycan	1300	12	0	4300	0	0	0	-	-	none	Brisbane		

The Active Ships screen shows a list of all active ships controlled by the player, providing a summary of these assets. Information on this screen includes:

- Type** – The ship type (CV for Aircraft Carrier, BB for Battleship, etc. – refer to section 17.1.2 Military Abbreviations for a full list).
- Name** – The name of the ship.
- Endurance** – The Endurance of the ship.
- Speed** – The maximum speed (in knots) for this ship.
- Ops** – Each ship has 1000 Ops (Operations) points that can be used per 12 hour pulse. If the ship does something (like refuel or load troops) during the Orders Phase, it will use Ops Points (the points expended will be displayed). This will take away from the distance the ship will be able to travel in the next 12 hour movement phase.
- Cap** – The ship's capacity for hauling cargo and/or resources (refer to 6.1.20 Loading and Unloading Transports for detailed information)
- Sys** – Current damage, if any, to the ship's systems.
- Flt** – Current damage, if any, to the ship's flight systems (not applicable if the ship is not designed to carry planes for flight operations)
- Fires** – Current level of fires, if any, aboard the ship.
- Sup** – Current number of supplies being carried by the ship, if any.
- Fuel** – Current amount of fuel being carried by the ship (as cargo), if any.
- Troops** – Number of troops being carried by the ship, if any.
- Location** – The current location of the ship.

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Along the top of the screen is a list of abbreviations. Click on each to bring up a list that pertains to that ship type:

<b>All Ships</b>	Displays all ships
<b>CV/CVL</b>	Aircraft Carriers and Light Carriers
<b>BB/BC</b>	Battleships and Battlecruisers
<b>CA/CL</b>	Heavy Cruisers and Light Cruisers
<b>DD/DE</b>	Destroyers and Destroyer Escorts
<b>TK/AO</b>	Tankers and Oilers
<b>SS</b>	Submarines
<b>AUX</b>	Auxiliary vessels

Clicking on any of the yellow column headers at the top will sort the list by that item.

## 5.2.5 All Task Forces

Active Task Forces		AS TF	AS Type	Surface	Submarine	Fuel Tanker	Transport	Enginewar	Miss War	Sub Type	Show Ammo
ID#	Mission	Endure	Endure Needed	Max	Cruise	A/C	Supply	Fuel	Troops	Total Ships	Location
501	Surface Combat	4393	0	34	15	2	-	-	-	6	Balibapian, move to
502	Surface Combat	3460	60	35	15	0	-	-	-	4	Soerabaja, move to
503	Sub Patrol	17820	2100	13	10	0	-	-	-	1	Pearl Harbor, move to
504	Surface Combat	14020	360	32	15	4	-	-	-	1	Balibapian, move to
505	Air Combat	7727	1380	32	15	81	-	-	-	9	Pearl Harbor, move to
506	Air Combat	8142	960	32	15	86	-	-	-	13	Pearl Harbor, move to
507	Transport	16806	960	12	10	4	-	-	-	9	Suva, move to
508	Transport	19686	5160	16	12	4	-	-	-	3	San Francisco, move to
509	Surface Combat	3978	300	32	15	4	-	-	-	6	Pearl Harbor, move to
510	Sub Patrol	10820	2100	17	8	0	-	-	-	1	Pearl Harbor, move to
511	Replenishment	2840	0	25	15	0	-	-	-	1	At sea
512	Surface Combat	2850	0	33	15	2	-	-	-	5	Soerabaja, move to
513	Surface Combat	2293	60	31	15	2	-	-	-	3	Soerabaja, move to
514	Surface Combat	3300	0	33	15	1	-	-	-	1	Soerabaja, move to
515	Sub Patrol	10760	1300	19	10	0	-	-	-	1	Tainan, move to
516	Sub Patrol	10760	1300	19	10	0	-	-	-	1	Takao, move to
517	Sub Patrol	15760	2100	21	10	0	-	-	-	1	Fochow, move to

The Active Task Forces screen brings up a list of all active Task Forces under the player's control providing a summary of these assets. Information on this screen includes:

- ID#** – The identification number of the Task Force (e.g., Task Force 505)
- Mission** – The current Mission assigned to the Task Force (refer to **6.1.4 Creating a Task Force** for detailed information).
- Endure** – A measure of the Endurance of the Task Force, taken from the ship in it that has the lowest Endurance.
- Endure Needed** – The amount of Endurance the Task Force needs to return safely to the base it started from.
- Speed: Max** – The maximum speed, in knots, that the Task Force can travel.
- Speed: Cruise** – The cruising speed, in knots, of the Task Force.
- A/C** – The number of aircraft, if any, in the Task Force.
- Cargo: Supply, Fuel, or Troops** – Indicates the number of the appropriate item, if any, loaded aboard the Task Force.
- Total Ships** – The total number of ships in the Task Force.

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- **Location** – The current location of the Task Force if at anchor; if it is moving, the location it is moving to is listed along with „move to.“

Along the top of the screen is a list of Missions. Click on each to bring up a list of Task Forces assigned to that Mission Type:

<b>All TF</b>	All Task Forces
<b>Air Ops</b>	Air Operations
<b>Surface</b>	Surface Combat
<b>Bombard</b>	Shore Bombardment
<b>Fast Trans</b>	Fast Transport
<b>Transport</b>	Transport
<b>Replenish</b>	Replenishment (of Task Forces)
<b>Mine War</b>	Mine Warfare (laying and clearing)
<b>Sub Ops</b>	Submarine Operations

In addition, the Show Ammo link at the top right of the screen allows the player to view vital information regarding the Task Force's current ammunition supply:

- **Gun** – Percent of full capacity that the Task Force is at for main gun ammunition
- **AAA** – Percent of full capacity that the Task Force is at for anti-aircraft (Flak) ammunition.
- **Torp** – Percent of full capacity that the Task Force is at for torpedo ammunition.
- **ASW** – Percent of full capacity that the Task Force is at for anti-submarine warfare.

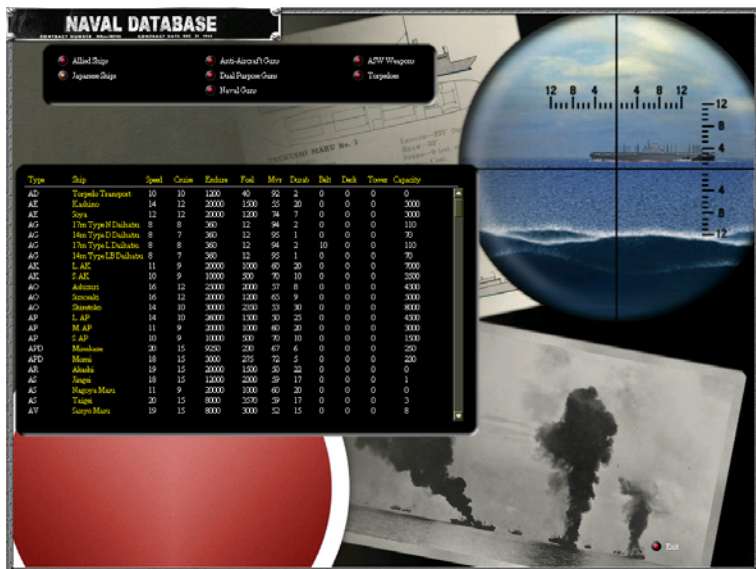
If a dash is listed, the Task Force does not have any weapons of that type.

The **Show Ammo** option replaces the **Cargo** information in the display; this can be toggled back and forth.



## 5.3 DATABASE SCREENS

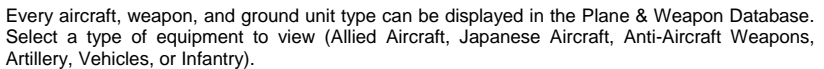
### 5.3.1 Naval Database



Every ship type, including their armaments, can be displayed in the Naval Database screen. Select the side (Japanese or Allied), and the ship type from the list. For each ship type listed, its performance and weapons mounts are displayed. For more information on the weapons mounts, select the appropriate button at the top of the screen.

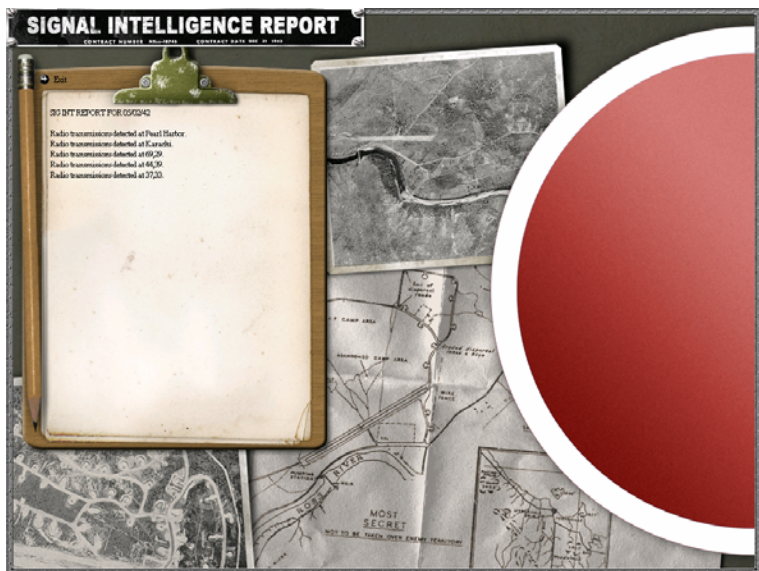
If a date appears after the ship's name (e.g., Yamato 12/42), the numbers indicate the month and year that particular ship class is available.

### 5.3.2 Plane & Weapon Database



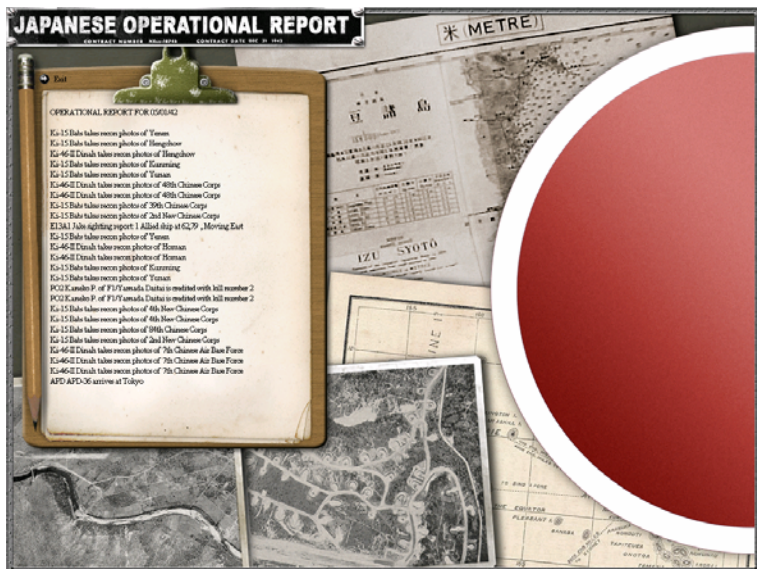
A list will display in a window below the selection area. Select the platform to view and a picture of it will appear above the list, and the window will be replaced with data relevant to the selection.

## 5.4 SIGINT SCREEN



The SigInt (Signal Intelligence) Screen is used to get a feel for enemy movements and locations, based on the interception of their communications. The list displayed will detail the reports received since the last Orders Phase and will indicate possible enemy movements and/or garrisons.

## 5.5 OPS REPORT



The Operations Report is essentially a summary of all messages received by the player while the AI routine was running. If the player needs to step away from the computer for a period of time, any missed messages will appear on this Report.

**Note on SigInt, Ops, and Combat Reports:** When a game is loaded (new or saved), the player should always see whatever Combat, SigInt, and Operations Reports that were most recently created when these buttons are clicked on. The player should be aware that they may have nothing to do with the current game being played. In a PBEM game, the Allied player can run the Combat Replay, and this will create correct reports for the most recent turn. Then when the save is loaded, the player will be able to view the correct reports for the turn just executed.

## THE UNITS

*"In the first six to twelve months of a war with the United States and Great Britain I will run wild and win victory upon victory. But then, if the war continues after that, I have no expectation of success."*

- Admiral Isoroku Yamamoto, Commander in Chief of the Japanese Navy (1940)

The war in the Pacific can be likened to a rock-scissors-paper conflict. The navy needed land-based aircraft for long-range reconnaissance and attacks on enemy fleets and airfields. Land based aircraft needed the navy to escort supply vessels laden with fuel and ammunition. Both the navy and air force depended on soldiers to seize and hold the airfields and bases needed to secure victory.

Victory depends on knowing the capabilities of your troops. *War in the Pacific - The Struggle Against Japan, 1941-45™* features the land, sea and air forces of the United States, Japan, Australia, New Zealand, the Netherlands, India, China, and Russia. There are a huge number of units each with a plethora of capabilities, but remember that the victorious commander is the one who knows how to make full use of their forces. In the following sections, we will detail Naval Units (6.0), Air Units (7.0), and Ground Units (8.0).

## 6.0 NAVAL UNITS

*"It is the function of the Navy to carry the war to the enemy so that it will not be fought on U.S. soil."*

- Admiral Chester W. Nimitz, Commander in Chief of the Pacific Fleet

Naval units, the backbone of the Pacific campaign, carried the brunt of the conflict on their steel shoulders. They took on a wide array of Missions that were as diverse as the tasks they were built for; from the largest battleship to the smallest PT boat, each served a purpose and each contributed their part to the war effort. Combat notwithstanding, the unseen yet vital services of logistics (getting supplies from one point to another – refer to section **14.0**) were almost exclusively carried across the water. Whomever rules the waves controls the means of supplying their troops on land, which ties in to success in the air and on the ground.

### 6.1 TASK FORCES AND SHIPS

Though *War in the Pacific - The Struggle Against Japan, 1941-45™* accounts for individual ships, they are not represented on the map unless they are part of a Task Force (hereafter referred to as TF). If they are anchored at a port, you can find them by clicking on an anchor symbol next to a base or by selecting them from the List All Ships Screen in the HCD. When a TF is docked in a port, its ships are still listed as part of the TF.

There are four main types of ships:

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- **Combat** (surface) ships (Battleships, Aircraft Carriers, Destroyers, etc.). Surface ship task forces can execute a wide variety of Missions, such as launching carrier air strikes, bombarding ground targets and laying or sweeping minefields.
- **Submarines**, usually sent on patrol as a TF, usually with only one sub in each. The computer can give it patrol orders, or you can choose to give it a Destination Hex (DH) yourself. Missions for sub TF's are Sub Patrol, Sub Minelaying, and Sub Transport (refer to sections 6.1.9.8, 6.1.9.9, and 6.1.9.10 respectively for more details). Subs can attack enemy shipping as they move through the sub's hex, in the same manner as mines.
- **Transports**
- **Auxiliaries** such as oilers, mine sweepers, mine layers, etc.

## A listing of ship types is provided in Appendix A.

Ships begin scenarios either in TFs, or "at anchor" in a port. Ships that are at anchor will not move, but they will defend the base if attacked, adding half their AA firepower to the base in defense of the port. During the process of creating a TF (either from a port or from an existing TF), each is automatically assigned, or is given by the player, orders regarding:

1. **Mission Type** (one of 12 possible Missions)
2. **Home Base** (the port the ship will return to after it has completed its Mission or decided to withdraw from the Mission)
3. **Control Status** (Human Control or Computer Control). Only Fast Transport, Transport, Replenishment and Submarine Task Forces can be set to Computer Control.
4. **Patrol/Retreat Status** (i.e. either Patrol/Do not retire or Retirement Allowed). Submarine Task Forces do not have a Patrol/Retreat Status.
5. **Max React Range** is only available to Air Combat and Surface Combat Task Forces. The player sets a Max React Range for their appropriate TFs, which is the *maximum number of hexes* the TF will move when reacting to an enemy's presence (0 to 6). If the player does not want the TF to react, he simply sets the Max React Range to 0.
6. **Refueling**, either Refueling Ok or Do Not Refuel.
7. **Speed**, either Mission Speed, Full Speed, or Cruise Speed.
8. **Auto-Disband**, either Auto-Disband or No Auto Disband.

## 6.1.1 Task Force Symbols

In *War in the Pacific - The Struggle Against Japan, 1941-45™*, the TF symbols on the game map vary in appearance, based on the type of Mission it currently has assigned (for a list of these on map symbols, refer to **4.2.5 Map Icons**). The symbols below appear in the Hex Command Display when the appropriate TF is selected on the Tactical Map. These will vary in appearance depending on the side played (Allied or Japanese). The symbols appear as follows:

### Task Force Mission



**Air Combat.** The vanguard of all naval offense had at least one Aircraft Carrier (or 'flattop') with it, projecting strength through their air components. These Missions seek to destroy the enemy in any form wherever he may be found – but especially sought out enemy flattops.

**Surface Combat.** When air power fails, or a more 'personal' touch is required, these TF's serve to allow battlewagons (Battleships, Cruisers, and Destroyers, as well as other specialist vessels) to seek out and destroy enemy ships.

**Anti Submarine Warfare (ASW) Combat** are used for hunting enemy submarines exclusively and will not allow large warships in them (only SC, PG, PC, APD, DE, DD type ships). The chance of this TF contacting enemy subs in coastal hexes is higher when compared to open water hexes. ASW TFs will get a better chance of shooting first if a contact is made.

**Bombardment.** These TFs differ from Surface Combat TFs in that the assigned ships' big guns are destined to shell enemy-held bases, facilities, and troop concentrations.

**Fast Transport.** These TFs revolve around the transport of supplies and troops, but in faster, more agile vessels (such as converted Destroyers). However, these ships cannot carry payloads anywhere near the size of regular Transports.

**Escort.** These TFs serve to protect the TF they are assigned to; this usually is to protect a TF from enemy surface forces.

**Transport.** These TFs are tasked with moving vital supplies and ground troops to the ever-thirsty front lines. They are slow and plodding, but carry a vast quantity of war materiel.



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**Replenishment.** Vital Missions unto themselves, without which attack TFs would become little more than floating airstrips and pillboxes for want of the precious fuel, oil, ammunition, and supplies. These specialty vessels carry these exclusively for the fleets they operate with.

**Mine Warfare.** These task group Missions seek to either remove or lay the silent killers of the seas – anti-ship mines. A well-placed minefield can cripple a mighty task group, so these specialist ships can also trawl for enemy mines and remove them safely.

**Sub Patrol.** These (preferably) unseen and unheard task forces, usually comprised of a single submarine each, gather vital intelligence and take out enemy targets of opportunity.

**Sub Minelaying.** Stealthier than their surface-bound cousins, a submarine minelaying task force can lay mines quietly, but in numbers more limited than Mine Warfare surface groups.

**Sub Transport.** Like Minelayers, these task force Missions are harder to detect than that of Transports or Fast Transports, but their capacity is limited when even compared to Fast Transports.

## 6.1.2 Task Force Information Screen

Clicking on a Task Force brings up the Task Force Information Screen. The left side of this screen displays TF data, while the upper center and right side are for giving orders. In the list at center are the ships that make up the Task Force.

US Navy TF 1001 (15 ships) is at sea

Mission: Air Combat

Moves (in 6) 6/2 Fuel: 375/130

Cargo Aircraft: 156, MS: 948(100)

Float Planes: 20

Commander: Fitch, A.

Rank: RADM

Leadership: 54, Inspiration: 50

Guns: 4752 (100) AAA: 4756 (100)

Torps: 64 (100) ASW: 28 (100)

**AIR COMBAT**

Human Control

Retirement Allowed

Mission Speed

Do not Unload

Refueling OK

No Auto-Deband

Set TF Destination

Destination Hex: Gili Gili - 56,94

Set TF to Follow

TF Followed: None

Set HomeBase

Home Base: Gili Gili

Set Mission

Air Combat

Form New TF

Transfer Ships to/from TF

Deband TF

Dock TF

Replenish TF from Port

Replenish TF at Sea

Load Supplies

Load Fuel

Load Troops

Load Only Troops

Load Oil/Resources

Unload Cargo/Troops

Cargo Status:

Idle

Total Load: 0 of 0

Max React 6

Activate Barges

Activate PT Boats

Back

Exit

Type	Name	Endure	Speed	Ops	Capacity	Sys	Flt	Fuel	Sup	Fuel	Troops
CA	Portland	3034	32	0	4	0	0	0	-	-	none
CA	Chester	3034	32	0	4	0	0	0	-	-	none
CA	New Orleans	3034	32	0	4	0	0	0	-	-	none
CA	Astoria	3034	32	0	4	0	0	0	-	-	none
CA	Minneapolis	3034	31	0	4	1	0	0	-	-	none
CV	Lexington #	3034	33	0	90	0	0	0	-	-	none
CV	Yorktown	11816	32	0	90	0	0	0	-	-	none
DD	Anderson	4860	35	0	0	0	0	0	-	-	none
DD	Hammann	4860	34	0	0	1	0	0	-	-	none
DD	Russell	4860	35	0	0	0	0	0	-	-	none
DD	Morris	4860	35	0	0	0	0	0	-	-	none

Return to San Francisco

Return to Gili Gili

Control Zone: SE

Control: Human

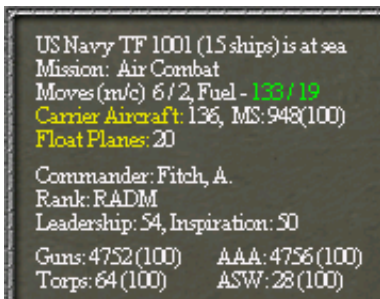
Next TF in Hex

In this case, we are looking at Task Force **1001**, a **US Navy** force, comprised of two aircraft carriers (CV), the *Lexington* and *Yorktown*, along with numerous smaller ships – visible above are five heavy cruisers (CA) and four destroyers (DD), but the list will only be able to display up to twelve ships at a time; there's 15 total in this Task Force. If more than twelve ships are in a Task Force, use the scroll bar at the right of the list to view the list of other ships. The flagship of this TF is indicated by the pound sign (#) next to its name; in this case, it is the *Lexington*.



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Reading along the top, we see that TF 1001 is **at sea**. This screen also indicates the following:

**1. Mission: Air Combat** indicates the TF's Mission is Air Combat – it is seeking to destroy the enemy with air power.

**Moves (m/c) 6 / 2** indicates the number of hexes the TF can move is 6 at maximum speed and 2 at cruising speed. If the number of hexes for the "Moves" data is not displayed in green, the TF may not have enough supplies to reach its destination or may not have movement orders issued yet.

**Fuel is 133 / 19** is an indication of the range of the TF with its current fuel load. The first number (133) is the *average* endurance of all ships in the TF; the second number (19) is the *total* number of hexes that the TF needs to move in order to *both* reach its destination *and* return to its base.

**Carrier Aircraft** is the number of currently available carrier aircraft that are attached to the TF (136).

The **MS** rating next to this number is the **Max Sorties**, or maximum number of combat flights that this Task Force can support. Right now, in this example, this Task Force can support **948** combat flight sorties; it has enough aviation fuel and ordinance for that and no more. The number in parenthesis is a percentage measurement of the remaining amount of sorties the Task Force can undertake (right now it's at **100**, indicating it has not entered combat operations yet or has just been replenished to capacity).

**A Sortie is one aircraft flying from its base to target and back. If ten aircraft take off on a strike against an enemy cruiser, for example, that's 10 Sorties. If 100 aircraft take off on a raid against an enemy port, return without loss, and refuel/rearm and take off to strike again, that's 200 Sorties. Essentially, this Task Force in our example can handle up to the equivalent of 2,160 aircraft launching strikes. Of course, it does not have near that many aircraft (only 242 at the present time), so doing some rough math one can determine that each aircraft can fly a little less than 10 combat sorties before the Task Force runs out of supply for their aircraft. CAP and Search Missions do not count against the max sortie limit (they do not spend max sortie points).**

1. **Float Planes** is the number of float planes attached to the TF (usually located on Battleships and Cruisers, used for scouting purposes).
2. The **Commander** of this TF is **Fitch, A.**
3. This leader's **Rank** is **RADM**, or Rear Admiral.
4. This Commander has a **Leadership** rating of **54** and **Inspiration** rating of **50**.
5. The loadout for the Task Force in terms of ammunition:
  - a. **Guns: 4752 (100)** indicates the main guns of the Task Force (not anti-aircraft guns, but large caliber support weapons such as 5-inch guns on

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light cruisers) have enough ammunition to fire 4,752 times, and are at 100% capacity.

- b. **AAA: 4756 (100)** indicates the Task Force's anti-aircraft guns have enough ammunition to fire 4,756 times, and are at 100% capacity.
- c. **Torps: 64 (100)** indicates the Task Force has 64 shipborne torpedoes total, and is at 100% capacity.
- d. **ASW: 28 (100)** indicates the Task Force has enough ammunition to fire 28 times in antisubmarine attacks, and is at 100% capacity.

**As this ammunition is used, the numbers will dwindle and the percent capacity will lower. The percent capacity gives the player an idea of how low the ammunition stock is for that particular weapons system in sum for the entire Task Force.**

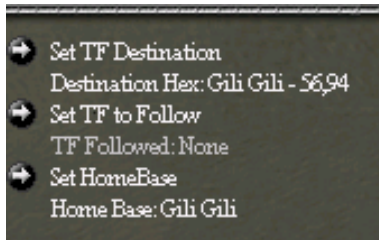


- 6. This TF is under **Human Control** (meaning the player has control over its operations) and cannot be set to Computer Control, as it is grayed out.
- 7. This TF has **Retirement Allowed** rating selected so that it will retreat to preserve its ships and/or air components if faced with overwhelming odds. This can be clicked on and changed to **Patrol/Do Not Retire**, which will tell the TF to not retreat.
- 8. **Mission Speed** tells the TF to use the speed that is appropriate for the Mission based on the type of Mission and other orders (Patrol, Retire, etc.) as described in section **6.1.9** and **6.1.10**. **Full Speed** orders the TF to *always* move at full speed, while **Cruise Speed** tells the TF to *always* move a cruising speed.

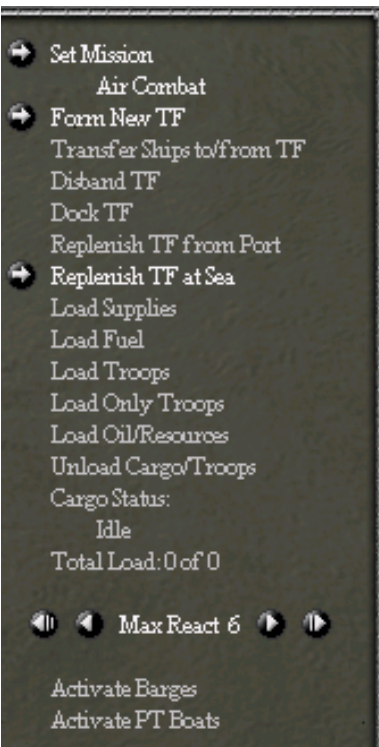
**For most Missions it is advisable to let the TF decide the speed by selecting the Mission Speed order.**

- 9. Currently, the TF has a **Do Not Unload** order set, indicating it is not to unload. Since this is an Air Combat TF, it has no transportable items and therefore this order is not an option. If the TF did have unloadable items, this order would tell the TF to not unload upon reaching its destination. This command is useful when you want to move a TF to a base to replenish its fuel and ammunition, but the base is not the final destination of your TF.
- 10. This TF has its **Refueling: OK** order set, indicating it will automatically refuel when located in a base (with a port) hex. Setting this to **OK** will ensure your TF's will fill up when in a friendly port; selecting **Do Not Refuel** will tell the TF to *not* refuel when docked.
- 11. The **No Auto Disband** order tells the TF to not disband upon completing its current orders (see section **6.1.6 Disbanding Task Forces**). If this is set to **Auto Disband**, upon completing its Mission the TF will automatically disband once it has returned to a friendly port.

12. The **Set TF Destination** option allows the player to determine a destination hex for the current TF. To change the TF's Destination Hex, click the arrow to the left of this title. In the above example, Task Force 1001's current destination hex is 56,94 (which is Gili Gili, on the eastern tip of Port Moresby). To cancel this action, click the right mouse button before selecting a destination hex.



13. The **Set TF to Follow** option allows the player to set the current TF to follow another TF. In the above example, Task Force 1001 is currently not following another TF. To set it to follow another, click the arrow to the left of this title. The screen will be replaced by a large display of the tactical map; scroll around and click on a TF for the current one to follow. To cancel this action, click the right mouse button before selecting a TF to follow. Since it is not following another TF at this time, the **TF Followed** field displays **None**. Otherwise, the TF number being followed would be displayed here.



14. The **Set Mission** option allows the user to select a Mission for the current TF. Click the arrow to the left of the title and a new window will appear; then, click on a ship icon next to the Mission type listed. Some TF's will be limited to the type of Missions they can undertake. When the arrow is clicked, a new window will appear listing all the Mission Types that can be created, based on the ship types present. For example:

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Task Force 505 can only select an Air Combat, Escort, or Transport Mission, since the ships attached to it are only capable of executing these Missions.

15. The **Form New TF** option is similar to the Form New TF option located in friendly Ports. New TF's formed from a TF screen may only use ships present in the current TF. Click the arrow next to this title and a new window will appear, showing the original TF and a new TF. Only one TF at a time may be created in this manner.



The computer automatically assigns the new TF a number (1004) and allows the player to select from the list a Mission Type. Other options may or may not be set depending on the current situation, including Human/Computer Control and Retirement Allowed/Not Allowed. When a Mission Type and any desired options have been selected, click the arrow next to the **Done – Proceed to Ship Selection** title at the bottom of the screen. To cancel the TF creation, click **Back** (to return to the TF screen) or **Exit** (to exit to the Tactical Map).

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Ships Available for Transfer to: TF 1004

Click on Name of Ship to Transfer Ship — Click on Location to Change Gaining TF

Type	Name	Endurance	Speed	Ops	Cap	Damage			Cargo			Change Location
						Sys	Flt	Fires	Sup	Fuel	Troops	
CA	Portland	10316	32	0	4	0	0	0	-	-	none	TF 1001
CA	Chester	10316	32	0	4	0	0	0	-	-	none	TF 1001
CA	New Orleans	9616	32	0	4	0	0	0	-	-	none	TF 1001
CA	Astoria	9616	32	0	4	0	0	0	-	-	none	TF 1001
DD	Anderson	6166	35	0	0	0	0	0	-	-	none	TF 1001
DD	Russell	6166	35	0	0	0	0	0	-	-	none	TF 1001
DD	Morris	6166	35	0	0	0	0	0	-	-	none	TF 1001
DD	Phelps	7316	34	0	0	0	0	0	-	-	none	TF 1001
DD	Dewey	5366	32	0	0	0	0	0	-	-	none	TF 1001
DD	Monaghan	5366	32	0	0	0	0	0	-	-	none	TF 1001
DD	Alvin	5366	32	0	0	0	0	0	-	-	none	TF 1001
CA	Minneapolis	9616	31	0	4	1	0	0	-	-	none	TF 1001

Gaining TF: TF 1004 Mission: Surface Combat (0 ships) Max Speed: 0 (0) Cruise Speed: 0 (0)

Click on Name of Ship to Cancel Transfer

Type	Name	Endurance	Speed	Ops	Cap	Damage			Cargo			Old Location
						Sys	Flt	Fires	Sup	Fuel	Troops	

Done

The old TF is located at the top of this new display, while the new TF to be created is located at the bottom. Click on a ship from one TF to transfer it to the other TF. When finished, click the arrow next to **Done** located in the lower right corner of the screen. If you change your mind about creating the TF after you've selected ships to go into it, simply select the ships from the bottom screen to move them back into the old TF and then click **Done** to exit.

- The **Transfer Ships to/from TF** option is available to select when two or more TF's exist in the same hex. With this command, the player may select ships to transfer from one TF to another. Transfer of ships is completed in the same manner as creating a new TF, detailed in item 19 (above).
- Disband TF** is an option only available when in port. This command will disband the TF and leave the ships available for creating a new TF or joining an existing TF.
- The **Dock TF** command tells the current TF to dock and take on supplies as well as complete any repairs. This command is useful when the ship is near a friendly port and needs to replenish.
- The **Replenish TF from Port** option is only available when the TF is located in a friendly Port. If selected the TF will immediately consume supplies from the port to replenish its ammunition to its capacity, taking on ammunition appropriate for its current Mission (i.e. subs in a sub minelaying TF will take on extra mines in place of torpedoes, etc.).

19. The **Replenish TF at Sea** option is available if the TF has replenishment vessels within it. This command will tell the TF to slow down and immediately replenish all ships that need fuel. The amount of time it takes to do so depends on the amount of fuel that the ships are depleted. TFs will automatically refuel from their own ships in their TF during the first 4 turns of any scenario. This will allow the TFs in scenario 1 that have moved long distances to fully move during the first few turns.
20. **Load Supplies** tells the TF to load supplies from its current location. This option is only available if the TF is located in a friendly Port that has supplies available to load on the TF.
21. **Load Fuel** tells the TF to load fuel from its current location. This option is only available if the TF is located in a friendly Port that has fuel available to load on the TF.
22. **Load Troops** tells the TF to load air units *and* ground units, as well as supplies to sustain them. This option is only available if the TF is located in a friendly Port that has troops available to load on the TF. Once ships are filled with ground units and/or air units, any excess Capacity is filled up by supplies.
23. **Load Only Troops** tells the TF to load only air and ground units, but *not* supplies (i.e., excess Capacity will *not* be filled with supplies).
24. **Load Oil/Resources** tells the TF to load the sinews of war – oil and raw materials needed for hungry factories at home. Any available oil and/or resources at the current friendly Port are loaded to the capacity of the TF.
25. **Unload Cargo/Troops** tells the TF to unload any cargo and/or troops that it has aboard its ships. This option is only available if the TF is located in a friendly Port and has cargo and/or troops to unload.
26. **Cargo Status:** will be either **Loading** (taking on cargo), **Unloading** (dropping off cargo), or **Idle** (neither loading or unloading).
27. **Total Load: # of #** indicates the TF's current load. The lefthand (first) number indicates the current load that supplies, transported fuel, troops, and oil/resources are taking up in the holds of the TF. The righthand (second) number indicates the maximum capacity for this TF.
28. **Max React** indicates the *maximum distance* the TF will travel when reacting to the enemy. Enemy units outside of this range will not be reacted to.
29. **Activate Barges** allows TFs and/or bases with supplies to convert those supplies into barges. Barges must be available before they can be built (refer to your Ship Availability Screen in your Intelligence Screen to check); if so, a new TF will be created containing only barges.
30. **Activate PT Boats** allows Allied (only) TFs and/or Allied (only) bases with supplies to convert those supplies into PT Boats. PT Boats must be available before they can be built (refer to your Ship Availability Screen in your Intelligence Screen to check); if so, a new TF will be created containing only PT Boats.

## 6.1.2.1 Yellow Text Displays on Ships and Ship Column Headings

Yellow text indicates one of three things:

1. If it is a heading of a column, clicking it will cause the column to sort and rearrange the various listed units according to the criteria in that column. For example, clicking on the **Endurance** heading would arrange all ships to be listed by remaining Endurance, with the highest-rated ships listed first and followed by the next-lowest rated ships. Clicking on it again will cause the lowest-rated ship to appear first, with the next-highest ships appearing below.
2. If it is the name of a unit, clicking on it will bring up that unit's Information Screen (where more detailed reports can be found and orders issued).
3. If it is neither of the above, clicking on the text will cause a detailed report to appear based on the text itself (for example, clicking on **Carrier Aircraft** will cause the Air Unit Information Screen to appear, listing all Air Units that are assigned to the TF.

Furthermore, numbers are color-coded to indicate both quantities of material (such as fuel, endurance, and ammunition), as well as damage levels.

US Navy TF 522 (13 ships) is docked at Pearl Harbor  
Mission: Surface Combat  
Moves (m/c): 1/0, Fuel - 340/17  
Flood Phase: 22

Commander: Shafroth, J.F.  
Rank: ADM  
Leadership: 61, Inspiration: 67  
Guns: 38049 (100) AAA: 3545 (100)  
Torps: 20 (100) ASW: 8 (100)

**SURFACE COMBAT**

Human Control  
Retirement Allowed  
Mission Speed  
Do not Unload

Refueling Ok  
No Auto-Discard

Set TF Destination  
Destination Hex: None  
Set TF to Follow  
TF Followed: None  
Set Home Base  
Home Base: Pearl Harbor

Set Mission  
Surface Combat  
Form New TF  
Transfer Ships to/from TF  
Detach TF  
Unlock TF  
Replenish TF from Port  
Replenish TF at Sea  
Load Supplies  
Load Fuel  
Load Troops  
Load Only Troops  
Load Oil/Resources  
Unload Cargo/Troops  
Cargo Status:  
File  
Total Load: 0 of 0  
Max React: 0  
Activate Barges  
Activate PT Boats

Type	Name	Endure	Speed	Ops	Capacity	Sys	Hit	Fires	Sup	Fuel	Troops
BB	Maryland#	19720	15	0	2	21	0	0	-	-	none
BB	West Virginia	19720	4	0	2	80	25	0	-	-	none
BB	Nevada	18000	8	0	2	42	38	0	-	-	none
BB	Oklahoma	18000	11	0	2	43	33	0	-	-	none
BB	Arizona	30000	12	0	2	41	39	0	-	-	none
BB	Pennsylvania	30000	6	0	2	68	32	0	-	-	none
BB	California	30000	10	0	2	49	22	0	-	-	none
BB	Tennessee	30000	9	0	2	32	15	0	-	-	none
CA	San Francisco	10000	23	0	4	26	0	0	-	-	none
CL	Helena	16000	18	0	4	42	0	0	-	-	none
DD	Conyngham	6000	24	0	0	31	19	0	-	-	none

Control Zone: E  
Control: Human  
Next TF in Hex

Return to San Francisco Return to Pearl Harbor


Back Exit

As an example of damaged ships in a TF, we can see from this picture that Task Force 522 has thirteen ships. This TF was created from all the damaged ships from the Pearl Harbor attack on the December 7 turn in this game example, and therefore all ships are damaged. There are a wide range of color-coded numbers here. Essentially, the more damaged a system is, the closer to dark red it will become. As systems are repaired, the red color will lighten. Compare, for instance, the Sys damage of the BB West Virginia (80) versus the Sys damage of the BB Maryland (21). The '21' is a lighter color than the '80' since it is less damaged in that component. A green-colored number is ideal, as that means an undamaged system. All of the displayed ships have a green zero in their Fires category, indicating thankfully for the U.S. none of them are on fire.



## 6.1.3 Ship Information Screen

CV Lexington (Lexington Class) - Flag  
US Navy, TF 1001 - Air Combat  
Crew Experience - Day/Night: 71 / 42  
Captain: CPT Sherman, F.  
Leadership/Inspiration: 65 / 69



Max Speed: 33 (6)  
Cruise Speed: 15 (3)  
Maneuver: 15  
Anti-Aircraft: 324  
Anti-Submarine: None  
Endurance: 9616  
Fuel: 300  
Belt Armor: 175  
Deck Armor: 50  
Tower Armor: 50  
Durability: 110  
System Damage: 0  
Flood Damage: 0  
Fire: 0  
AC Capacity: 90 / 69  
Max Sorties: 414 / 414  
Victory Value: 380

Device	Num	Face	Mount	Armor	Range	Pen	Ammo
8in/55 Mk 9 Gun	x4	F	(2)	5	32,000	275	12
8in/55 Mk 9 Gun	x4	R	(2)	5	32,000	275	12
5in/25 Mk 10 Gun	x6	RS	(3)	0	15,000	50	36
5in/25 Mk 10 Gun	x6	LS	(3)	0	15,000	50	36
1.1in Mk 1 AA Gun	x16	RS	(4)	0	7,000	12	50
1.1in Mk 1 AA Gun	x16	LS	(4)	0	7,000	12	50
1.1in Mk 1 AA Gun	x4	C	(4)	0	7,000	12	50
0.5in Browning M2 MG	x14	RS	(1)	0	7,000	10	50
0.5in Browning M2 MG	x14	LS	(1)	0	7,000	10	50
CXAM Radar	x1	A	(1)	0	150,000	NA	NA

VF-2 21 x F4F-3 Wildcat  
VS-2 18 x SBD Dauntless  
VB-2 18 x SBD Dauntless  
VT-2 12 x TBD Devastator

Scuttle ◀ Next Ship in TF ▶ ◀ Back ▶ Exit

To get information about any of the various ships in a Task Force, click on the name of the ship (the same goes for Air and Land screens as well; click on the unit's name to open up a more detailed screen). Returning to the Air Combat TF and selecting the *Lexington*, we see that this is a *Lexington*-class aircraft carrier, and that it is a Flagship (**Flag**) of TF 1001's Air Combat Mission.

CV Lexington (Lexington Class) - Flag  
US Navy, TF 1001 - Air Combat  
Crew Experience - Day/Night: 71 / 42  
Captain: CPT Sherman, F.  
Leadership/Inspiration: 65 / 69

The crew is decent at **Day** fighting (with an experience of 71), but would be very poor at **Night** (with an experience of 42). The ship's **Captain, CPT Sherman, F.**, has a **Leadership** rating of 65 and an **Inspiration** rating of 69.

Device	Num	Face	Mount	Armor	Range	Pen	Ammo
8in/55 Mk 9 Gun	x4	F	(2)	5	32,000	275	12
8in/55 Mk 9 Gun	x4	R	(2)	5	32,000	275	12
5in/25 Mk 10 Gun	x6	RS	(3)	0	15,000	50	36
5in/25 Mk 10 Gun	x6	LS	(3)	0	15,000	50	36
1.1in Mk 1 AA Gun	x16	RS	(4)	0	7,000	12	50
1.1in Mk 1 AA Gun	x16	LS	(4)	0	7,000	12	50
1.1in Mk 1 AA Gun	x4	C	(4)	0	7,000	12	50
0.5in Browning M2 MG	x14	RS	(1)	0	7,000	10	50
0.5in Browning M2 MG	x14	LS	(1)	0	7,000	10	50
CXAM Radar	x1	A	(1)	0	150,000	NA	NA

*Lexington*'s weapons are mostly defensive in nature. We can see that she has eight 8-inch gun batteries. Each weapon device is broken down as follows:

- A number (**Num**) of devices of that type



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- A facing (**Face**), indicating the direction that this grouping of devices is facing.
- **Mount** indicates the maximum number of weapons the device can carry
- **Armor** details how well-protected the mount is from attack and/or damage (only two of the 5-inch guns have any protection at all)
- **Range** shows in yards how far the device can fire
- **Pen** shows how the weapon is rated at penetrating enemy armor
- **Ammo** shows how well-stocked with ammunition that particular set of weapons is. If this number reaches zero, it will not provide any protection or offensive ability; a dry gun is a useless gun. Any Task Force, especially those designated for Surface Combat, that run low on ammunition need to seek replenishment or be easy pickings for the enemy.

VF-2	21 x F4F-3 Wildcat
VS-2	18 x SBD Dauntless
VB-2	18 x SBD Dauntless
VT-2	12 x TBD Devastator

Since *Lexington* is an Aircraft Carrier, she has an air component attached to her. U.S. carriers designated their squadrons with a "V" followed by the first letter of their function (F for Fighter, S for Scout, B for Dive Bomber, and T for Torpedo). A dash and number further identified the squadron. These squadrons were often called by their function and number (for example, "VF-1" would be called "Fighter One").

We can see that *Lexington* has three total squadrons: VF-2 (Fighter Two) with 21 F4F-3 Wildcats, VS-2 (Scouting Two) with 18 SBD Dauntlesses, VB-2 (Bombing Two) with 18 SBD Dauntlesses, and VT-2 (Torpedo Two) with 12 TBD Devastators. *Lexington* therefore has 21 fighters, 36 dive bombers (which can double as scouts), and 12 torpedo bombers – 69 aircraft in all.

In the Unit Information Screen for the *Lexington*, we see that her **Max Speed** is 33 knots (equating in game turns to 6 hexes per turn – the number in parenthesis). Her **Cruise Speed** is 15 knots (equating to 3 hexes per turn). The carrier's **Maneuver** rating is rather low at 15, meaning she can't exactly turn on a dime like a nimble destroyer could (Destroyer's Maneuverability ratings are closer to 70). Her **Anti-Aircraft** value, essentially a measure of her anti-air strength, is **824**, and she has no anti-submarine warfare capabilities so her **Anti-Submarine** shows **None**.

The *Lexington's* **Endurance** is **9816** and her **Fuel** is **5300**. Both these numbers are indicated in a green color, showing that her supply for both these items is good. As they dwindle, the color-coding will change from yellow (depleted) to red (almost gone).

The ship's **Belt Armor**, essentially the thickness of her hull at and below the waterline, is **175**. Her **Deck Armor**, measuring the thickness of armor covering her topside deck, is **50**. The **Tower**

Max Speed:	33 (6)
Cruise Speed:	15 (3)
Maneuver:	15
Anti-Aircraft:	824
Anti-Submarine:	None
Endurance:	9816
Fuel:	5300
Belt Armor:	175
Deck Armor:	50
Tower Armor:	50
Durability:	110
System Damage:	0
Flood Damage:	0
Fires:	0
AC Capacity:	90/69
Max Sorties:	414/414
Victory Value:	380

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**Armor** rating of **50** shows that the aircraft carrier's island structure (or central structure in other vessels) is as well-protected as her deck. Her **Durability** is an overall measure of the ship's seaworthiness, and is at **110**.

The **System Damage**, **Flood Damage**, and **Fires** ratings are, thankfully for the *Lexington's* crew, all at **0** right now. Again, these numbers are color-coded; the '0' is in green because this is an ideal setting; they can change to yellow (indicating damage) and red (indicating severe damage).

*Lexington's* **Aircraft Capacity** is shown as **90 / 69**, which means her maximum capacity is 90 but only has 69 aircraft on board (as we saw a few paragraphs ago). Also, her ability to conduct sorties is measured by **Max Sorties**, which we see is set at **414 / 414**. The left-hand number indicates the maximum number of sorties able to fly, while the right-hand number dwindles as *Lexington* launches them. This number is added with other carrier's Max Sorties ratings and totalled in the Task Force Information Screen's total.

Also, *Lexington's* **Victory Value** is **380**, which is the number of points scored for the Japanese when this ship is sunk.



At the bottom of the *Lexington's* screen are several orders that can be given:

- **Scuttle**, which sinks the ship and is only available if the ship is suffering from serious damage.
- **Next Ship in TF**, which will change the information on the screen to reflect the next ship (or previous ship, depending on the arrow clicked) in the TF.
- **Back**, which will move the display back one screen.
- **Exit**, which will exit to the Tactical Map.

The option to return to a major off map port (**Return to Pearl Harbor**) is only available in small map scenarios. It is only selectable when the player's ships are in one of the designated main bases for the scenario. If not in a main base, this option is grayed out. In full map scenarios this "off-map" movement is not an option and will not be on the display. The number in parenthesis next to the "Return to Pearl Harbor" indicates the round trip travel time for this ship (in days) not accounting for time to repair or upgrade the ship once it reaches the off map port.

Certain ships may upgrade by clicking on a button on the Ship Information Screen that brings up a list of possible conversions. The ship must be in Osaka (for the Japanese) or San Francisco (for the Americans) to have this button available. The upgrade will take 180 days (plus some for damage) added to the delay for the ship being converted. The ship types that can convert are:

- Large AK to AE, AR, AS, AV or MLE
- Allied only – Large AK to AD
- Allied only – PG or LST to AGP

**Note that a „large AK“ is an AK with a Capacity of 5000 or greater.**

The option to upgrade will appear in the Ship Information Display at the bottom left of the screen, if the ship meets the above requirements.

## 6.1.4 Creating a Task Force

To create a Task Force, click on a base (either on the Tactical Map or the List All Bases Screen) and then the **Form New Task Force** option. You will then see the Task Force Creation Screen. There are twelve Primary Missions as well as several secondary ones (or, Roles). A TF may contain a maximum of 25 ships (although 15 or less is most efficient for a combat TF) except for Escort and Transport TFs, which have a maximum of 100 ships.

Right clicking on a ship's name in the Form/Transfer TF display will show its name, class, main battery gun size, number of torpedo tubes, number of anti-submarine devices and the relative strength of its anti-aircraft guns. Every new TF created has:

- Its home base defaulted to the port at which the TF was created.
- Its control defaulted to human control (except Submarine TFs, Auto Convoy TFs, and TFs created by the computer in Control Zones that are run by the computer).
- Its **Patrol/Retreat Status** defaulted to Retirement Allowed. Note that submarine Task Forces do not have a Patrol/Retreat Status.
- Its **Max React Range** defaulted to React to enemy if the TF is an Air Combat or Surface Combat Task Force. This defaults to a value of zero (0).

The Mission types and the ships that can make up task forces with those Missions are listed in the table below (the abbreviations for ship types are standard U.S. Navy terminology and are defined in the appendix). Many of these Missions are self-explanatory; common sense will tell you that an aircraft carrier would not be in a Sub Patrol task force. But others are more complicated; for example, Transport Missions can accommodate most warship types because the freighters need an escort. Yet a TF with an Air Combat Mission cannot contain transport ships, because no sane carrier skipper is going to sail into battle with a bunch of slow freighters clinging to his heels.

TF's can be automatically selected using Auto Selection, or players can select the ships themselves. Only ships that can be in a task force will be displayed in the selection menu.

### 6.1.4.1 Mission Types and Ships Allowed

**A listing of all Ship Types is located in Appendix A.**

Mission	Ship Types Allowed
Air Combat	CV, CVL, CVE, BB, BC, CA, CL, CLAA, CS, DD, DE
Surface Combat	BB, BC, CA, CL, CLAA, CS, DD, DE, APD, DM, DMS, PC, PG, PT, SC
Bombardment	BB, BC, CA, CL, CLAA, CS, DD, DE, APD, DM, DMS, PG
Transport	CVE, CA, CL, CLAA, CS, DD, DE, APD, ML, MSW, AV, DM, DMS, AO, AP, PC, PG, P, T, SC, AG, AK, LSD, LST, LCI, LCM, LCVP, TK
Fast Transport	BB, BC, CA, C, CLAA, CS, DD, DE, APD, ML, MSW, AV, AVD, DM, DMS, AO, AP, PC
Mine Warfare	CA, CL, CLAA, CS, DD, DE, APD, ML, MSW, AV, DM, DMS, AO, AP, PC, PG

Replenishment	CVE, CL, CLAA, CS, DD, DE, PD, ML, MSW, AV, DM, DMS, AO, AP, PC, PG, SC, TK
Sub Patrol, Sub Transport, and Sub Minelaying	SS
Escort	All Ship Types Allowed
ASW Combat	BB, BC, CA, CL, CLAA, CS, DD, DE, APD, DM, DMS, PC, PG, PT, SC, MSW

## 6.1.4.2 Task Force (TF) Size

Task forces that consist of more than 15 ships suffer diminishing returns in effectiveness defending themselves against air attack and fighting in surface battles.

## 6.1.5 Assigning Missions

From the Task Force Creation Screen you may select from 12 basic TF Missions. Also, an additional eight Roles will appear in the right-hand column. Each Role uses a unique icon at the bottom of the screen for the TF for easier identification. A TF may change its Mission at any time, although the new Mission must be appropriate for all the ships in the TF (the list of Roles won't appear because the TF has already been built).

If there aren't enough ships present to create a complete Task Force, the new TF won't be created. However, you can still select ships manually.

## 6.1.6 Disbanding Task Forces

A TF may disband itself if it is in a hex with a friendly port with a current size of at least 3. When a TF is disbanded, each of the ships that were in the TF will replenish its ammunition. Ships at a friendly port with a current size of at least 3 may exist in the port separate of a task force in which case they will maximize their repair capability at the expense of additional vulnerability to enemy air and ship bombardment attacks (this is considered being at anchor).

## 6.1.7 Task Force Speed

Every TF has a calculated Maximum TF Speed and a Cruising TF Speed. The Maximum TF Speed is the maximum number of hexes the TF may move during a movement resolution phase, if it is attempting to move at maximum speed. There are only a few situations where a ship will move at maximum speed, as ships generally move at their cruising speed to minimize fuel usage and operational damage. These speeds are calculated by taking the appropriate speed of the slowest ship in the TF. The TF speed in hexes is equal to the slowest ship's speed in knots divided by 5, and is rounded up or down based on the computer's calculations. Regardless of how fast it is, no TF may move more than 6 hexes per turn.

All ships are given a movement allowance of at least 1 hex, even when out of fuel or badly damaged. This has been done for playability purposes to avoid the need to tow ships to port.

Over time, a TF will move the right number of hexes for its speed, but some pulses it will move 1 hex more than others (e.g. a TF with a speed of 11 will move 2 hexes 4 out of every 5 turns). This speed applies to **both** 12 hour movement pulses. So on the turns that the TF has a speed of 2, it will move 2 in both the day and night phases (4 total for the day), while on turns it moves a speed of 3, it will move 3 in both the day and night phases (6 total for the day).

### 6.1.7.1 Automatic Ship Separation From TF due to Damage and Loss of Speed

A badly damaged ship may automatically split off from its current TF and form its own TF (so it won't slow the main force down). This will happen if a ship:

- Is badly damaged, and is either in a Fast Transport TF or in a Surface Combat, Mine Warfare, or Bombardment TF with a Patrol/Retreat status of Retirement Allowed. This will happen if the ship's maximum speed drops below 25 knots.
- Belongs to any other type of TF (except Escort TF ships, which will always stay with the TF they're escorting), and its maximum speed drops below 5 knots. This slow speed could be due to either the ship always being slow, damage to the ship, and/or the ship being considered low on fuel and unable to steam at the required speed (unless it is able to immediately refuel).
- Is damaged and has a significant speed differential from other ships in the TF (for this purpose speeds over 25 are counted as 25).

A ship currently unloading will **not** split off until it is finished unloading. Nor will it split off if it is carrying troops and is one hex from its destination. If a ship separates from its original TF, it will be placed in a new TF with the same Mission and home base as its original TF. The new TF will have its Destination Hex set to its home base, and it will have its Patrol/Retreat status set to Retirement Allowed. Whenever a ship separates as described above, the ship's original TF checks to see if it will continue on its Mission or abort its Mission and return to base. This can happen even when the TF has a Patrol/Retreat Status of Patrol/Do not retire. The TF makes its decision based on how strongly its been attacked and how much damage its ships have taken. Task Forces with a Patrol/Do not retire status are less likely to abort than Task Forces with a Retirement Allowed status. Whenever a battleship or carrier detaches itself from a TF, the computer will attempt to detach an additional ship to escort the capital ship. This ship will be some kind of anti-submarine fighting ship (generally a destroyer). These two ships will never be automatically separated from each other.

If the base the TF started from is captured by enemy forces, the option to Return to Base will be grayed out and unavailable.

### 6.1.8 Patrol/Retreat and Max React Range

The Patrol/Retreat Status determines what the Task Force will do when it gets to its Destination Hex and how likely the TF will abort its Mission in the face of enemy attacks. If it is set to **Patrol/Do not retire**, the TF will try to press on to complete its Mission, regardless of enemy attacks. It will remain at the Destination Hex while performing its Mission, then return when it is low on endurance or seriously damaged. Task Forces set to Retirement Allowed will move to their Destination Hex, perform their Mission, and immediately return home. If they are forcefully

attacked, they will likely abort their Mission and return to their base. Non-patrolling Task Forces with certain Missions (such as Bombardment) will plan to arrive at their destination at night, moving into and away from the destination at full speed for 12 hours each way.

**Duplicating The Tokyo Express:** During the Guadalcanal Campaign, Japanese ships consistently sailed to Guadalcanal to bombard US forces and resupply their own ground units. Due to the US aircraft on Guadalcanal, the Japanese ships would always arrive at night, with their arrival timed so they could complete their Mission and sail out of range of American aircraft by sunrise. To do this in the game you must make use of the Max React status for TF's moving into territory covered by enemy aircraft. Players should set the Max React status to 0 (zero) for their Surface Combat and Air Combat TF's as otherwise they may alter course to intercept an enemy TF if it is spotted during its movement turn. Also remember a TF with Follow Another TF orders will continue to follow the lead TF. A TF with a Max React set to zero will not alter course from its DH to attack an enemy.

## 6.1.9 Mission Types and their Impact on Movement

Here is a brief description of each of the 12 possible TF Mission types. Each TF will follow certain movement guidelines based on its Mission type and its Patrol/Retreat and React/Do Not React To Enemy Status. These guidelines are listed for each Mission type and Patrol/Retreat status. The following tables show which Orders are available to the following TF types with each of **Patrol/Do Not Return** or **Retirement Allowed** selected.

**PT boats on patrol do not use fuel if they remain in one hex.**

### 6.1.9.1 Air Combat

An Air Combat TF has a maximum compliment of 25 ships. A TF with an Air Combat Mission is looking to use its carrier aircraft to engage enemy targets.

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH
Remain at DH	Arrive at Night
React to Enemy Carriers (if Max React is set to a number greater than 0)	Sprint Away From DH
	Abort if Attacked
	Avoid Potential Surface Combat

## 6.1.9.2 Surface Combat

A Surface Combat TF has a maximum compliment of 25 ships. A TF with a Surface Combat Mission is looking to initiate surface combat with enemy Task Forces.

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH (Exception: Move at Maximum Speed if within 25 hexes of destination)
Remain at DH	Sprint Away From DH
Initiate Surface Combat	Arrive at Night
React to Defend Friendly Base (if Max React is set to a number greater than 0)	Abort if Attacked
	Avoid Enemy Carriers
	Initiate Surface Combat

## 6.1.9.3 ASW Combat

An ASW Combat TF has a maximum compliment of 25 ships. A TF with an ASW Mission is searching for enemy submarines, with the intent to destroy them once they're found.

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH (Exception: Move at Maximum Speed if within 25 hexes of destination)
Remain at DH	Sprint Away From DH
Initiate Surface Combat	Arrive at Night
React to Defend Friendly Base (if Max React is set to a number greater than 0)	Abort if Attacked
	Avoid Enemy Carriers
	Initiate Surface Combat

## 6.1.9.4 Bombardment

A Bombardment TF has a maximum compliment of 25 ships. A TF with a Bombardment Mission is looking to bombard an enemy base and/or ground unit(s) when it reaches its Destination Hex. It will also initiate surface combat

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH (Exception: Move at Maximum Speed if within 25 hexes of destination)
Remain at DH	Arrive at Night
Bombard	Sprint Away From DH
Initiate Surface Combat	Abort if Attacked
	Bombard
	Initiate Surface Combat
	Avoid Enemy Carriers

## 6.1.9.5 Fast Transport

A Fast Transport TF has a maximum compliment of 25 ships. A TF with a Fast Transport Mission is looking to load a small cargo of supply/fuel/ground units and then move at maximum speed to its Destination Hex and unload its cargo. A Fast Transport TF may attempt to evacuate a ground unit from its DH instead of carrying cargo to be unloaded at the DH

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH (Exception: Move at Maximum Speed if within 25 hexes of destination)	Cruise to DH (Exception: Move at Maximum Speed if within 25 hexes of destination)
Arrive at Night	Arrive at Night
Sprint Away From DH	Sprint Away From DH
Fast Unload (Fast Load if Evacuation Ordered)	Fast Unload (Fast Load if Evacuation Ordered)
	Abort if Attacked
	Avoid Enemy Carriers
	Avoid Potential Surface Combat



## 6.1.9.6 Escort Mission

An Escort TF has a maximum compliment of 100 ships. A TF with an Escort Mission needs to have a target TF it will escort. This TF will then act to protect its assigned TF from enemy attack using its compliment of ships (i.e., a Carrier assigned to an Escort TF would fly CAP Missions over the protected TF, while one without would do its best to ward off enemy submarines and surface ships, etc.)

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH
Remain at DH	Arrive at Night
	Sprint Away From DH
	Abort if Attacked
	Avoid Enemy Carriers
	Avoid Potential Surface Combat

## 6.1.9.7 Transport

A Transport TF has a maximum compliment of 100 ships. A TF with a Transport Mission is looking to move to load a cargo of supply/fuel/ground units to it's Destination Hex and unload it's cargo.

If the Load Oil/Resources button is selected, all AK's in the TF will load resources and all TK's will load oil. No other ships will load anything. Oil and Resources are listed on the TF orders screen and the List all TFs screen under the Supply and Fuel columns. If they are oil and resources the numbers will be displayed in red.

A Transport TF with a TK can load oil and will have a button on its screen for that; a Transport TF with an AK can load resources and will have a corresponding button.

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH
Remain at DH	Arrive at Night
Standard Unload	Sprint Away From DH
	Standard Unload
	Abort if Attacked
	Avoid Enemy Carriers
	Avoid Potential Surface Combat

## 6.1.9.8 Replenishment

The Replenishment TF has a maximum of 25 ships. A TF with a Replenishment Mission is looking to refuel friendly ships at sea.

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH
Remain at DH	Arrive at Night (if enemy bombers within range)
Auto Replenish	Sprint Away From DH
	Auto Replenish
	Abort if Attacked
	Avoid Enemy Carriers
	Avoid Potential Surface Combat

## 6.1.9.9 Mine Warfare

The Mine Warfare TF has a maximum of 25 ships. A TF with a Mine Warfare Mission is looking to move to its Destination Hex and either lay a minefield or sweep enemy minefields, depending on Task Forces Patrol/Retreat Status, highlighted below. (Patrol orders have the TF sweep a minefield, while Retirement Allowed lays a minefield.) ML and DM ships may only load mines when in the hex with a size 9 or 10 port with sufficient supplies or in a hex with an MLE ship and a base with sufficient supplies. MLE must have no fire or float damage and less than 50% system damage, and have Op points remaining for the function to be allowed.

PATROL/DO NOT RETIRE	RETIREMENT ALLOWED
Cruise to DH	Cruise to DH (Exception: Move at Maximum Speed if within 25 hexes of destination)
Remain at DH	Arrive at Night
Sweep Minefield	Sprint Away From DH
	Lay Minefield
	Abort if Attacked
	Avoid Enemy Carriers
	Avoid Potential Surface Combat

## 6.1.9.10 Sub Patrol

The Sub Patrol TF has a maximum of 25 ships (although they always work best when operating alone). A TF with a Sub Patrol Mission will attempt to attack enemy ships with torpedoes.

ALL SUB PATROL TF'S
Cruise to DH
Remain at DH
Initiate Submarine Combat

## 6.1.9.11 Sub Transport

The Sub Transport TF has a maximum of 25 ships. A TF with a Sub Transport Mission is looking to move to load a cargo of supply/fuel/ ground units and then move to its Destination Hex and unload its cargo. It will then return home. Subs performing sub transport have their torpedo reloads replaced with supplies, 3 for every torpedo. They also load up 5 supplies for every A/C Capacity the sub had (subs are not actually allowed to use aircraft in *War in the Pacific - The Struggle Against Japan, 1941-45™*).

ALL SUB TRANSPORT TF'S
Cruise to DH
Standard Unload
Initiate Submarine Combat

## 6.1.9.12 Sub Minelaying

A TF with a Sub Minelaying Mission is looking to move to its Destination Hex and lay a minefield. It will then return home. Sub minelaying Missions will have their torpedo loadout decreased to one torpedo per torpedo tube due to having mines placed on board, unless the submarine is specially fitted to always carry mines that don't take space away from the normal torpedo load.

Subs may only load mines when in the hex with a size 9 or 10 port with sufficient supplies or in a hex with an MLE ship and a base with sufficient supplies. MLE must have no fire or float damage and less than 50% system damage, and have Op points remaining for the function to be allowed.

ALL SUB MINELAYING TF'S
Cruise to DH
Lay Minefield
Initiate Submarine Combat

## 6.1.10 Movement Guideline Descriptions

### Cruise to DH

The TF is moving at its cruising speed and will generally move along the shortest path to reach its Destination Hex. Under some circumstances, TFs will take a slightly longer path in order to avoid moving in coastal waters (near land).

### Move at Maximum Speed

The TF will move at maximum speed towards its DH, unless it is making a movement adjustment as described in **Arrive at Night**, below. Combined with Arrive at Night, these simulate actions like the Tokyo Express runs, and allows Task Forces to move at maximum speed while avoiding air attacks by sprinting into their destination during darkness and sprinting out again before the sun comes up.

### Sprint Away from DH

The TF will move at maximum speed towards its home base during the first movement phase. This will only occur if the DH is an enemy base or if the DH is a friendly base that is considered to be in dangerous territory. Otherwise, the TF will move at cruising speed.

### Arrive at Night

The TF will adjust its movement so that it will arrive at its destination during a Night naval movement phase. The TF will move at maximum speed to its DH during the Night turn. Combined with **Move at Maximum Speed** and **Sprint Away from DH**, these simulate actions like the Japanese naval bombardments of Henderson Field, and allows Task Forces to avoid air

attacks by sprinting into their destination during darkness and sprinting out again before the sun comes up. Ideally these kinds of Missions should be limited to Task Forces with a maximum speed of at least 11 hexes (27.5 knots) in order to minimize the risk of being bombed by aircraft. Historically, the Japanese limited their Fast Transport and Bombardment Missions to their Battlecruisers, Cruisers, and Destroyers, all of which had maximum speeds of 30 knots or higher.

## **Remain at DH**

The TF will remain at the Destination Hex until something triggers a return to base (see "Returning to Base Status").

## **Avoid Enemy Carriers**

The TF will temporarily move away at cruising speed from sighted enemy aircraft carriers, if in the Task Force's opinion it is not protected by an adequate amount of friendly carrier or land based aircraft. The TF will move towards a friendly base, generally towards the rear area, if it needs to move away from enemy carriers. This temporary movement will cease as soon as the enemy carriers are no longer perceived to be a threat.

## **Abort If Attacked**

If the TF is attacked by more than token enemy air or surface forces (as determined by the computer), the TF will return to its home base. The more friendly aircraft in the TF, the larger the enemy attack must be to trigger this abort effect. A TF that is aborting its Mission may turn back to its original target if the Destination Hex is reset during a subsequent Orders Phase.

## **Avoid Potential Surface Combat**

During a Night movement phase, the TF may temporarily withdraw at cruising speed towards a friendly base, generally towards the rear area, if it needs to move away from enemy Surface Combat or Bombardment TFs moving into its hex. If this withdrawal occurs, the TF will return to its original location on the next movement phase.

## **Initiate Surface Combat**

The TF will attempt to initiate surface combat against enemy Task Forces in the same hex.

## **Initiate Submarine Combat**

The TF will attempt to launch torpedoes against enemy ships in the same hex. If the escort of the defending TF is weak or non-existent (as determined by the computer), the submarine may surface and fire its guns.

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## Lay Minefield

The TF will create a minefield in its Destination Hex using all mines on any DM, ML, and SS ships in the TF.

## Sweep Minefield

Any DMS and MSW ships in the TF will attempt to clear any enemy minefield in its Destination Hex and any adjacent hex.

**DMS and MSW ships will attempt to sweep every hex they move into no matter what Mission and/or Patrol/Retreat status their TF has.**

## Bombard

The TF will bombard an enemy base and/or visible enemy ground units in its Destination Hex. If the TF is following another TF, it will bombard whenever it is in a hex with an enemy base and/or visible ground unit. Bombarding ships tend to shoot more often at bases, CD (coast defense) units, and ships at anchor, rather than other ground units.

## Auto Replenish

Any AO and TK ships in the TF will automatically refuel friendly ships in the same hex that are low on endurance.

## Fast Unload

The TF will quickly unload its cargo in its Destination Hex without incurring any movement delay and then set its Patrol/Retreat Status to Retirement Allowed. Up to 20% of the cargo may be lost when unloading due to the need to get it done quickly and get away.

## Standard Unload

The TF will unload its cargo at its Destination Hex, and once fully unloaded it will set its Patrol/Retreat Status to Retirement Allowed.

## React to Enemy Carriers

The TF, as long as it is not following another friendly TF, will move during an Day movement phase towards spotted enemy carriers in an Air Combat TF in order to attempt to get within range to launch an airstrike. This will only happen if the enemy TF begins the Day movement phase at least 4 hexes but no more than 8 hexes distant from the reacting TF. The reacting TF will *never* react if its **Max React** value is set to 0.

The reacting TF will move directly towards the nearest spotted enemy Air Combat TF containing a carrier, attempting to get closer the enemy TF. The TF will not react further than the number set for Max React. Also, the automatic 1 hex movement of carriers to close on enemy carriers will not happen if Max React is set to 0, but can happen on turns that a carrier has Reacted to Enemy Carriers.

## React to Defend Friendly Base

The TF will move to defend a friendly base that is occupied by friendly forces (supplies and/or troops) from any enemy TF that is spotted moving into the friendly base hex.

If a TF's **Max React** value is set to 0, however, it will *not* react to defend a friendly base. If this value is greater than 0 and the range is lower than or equal to the TF's **Max React** value, the TF will immediately move to the base hex if it is within one movement phase's maximum speed of the base at the moment the enemy TF enters the base hex. After a TF reacts to defend a friendly base, it automatically resets its Patrol/Retreat Status to Retirement Allowed. This guideline lets a TF patrolling within 12 hours' steaming distance of a friendly base to move in to protect the base when intelligence reveals an imminent attack. However, a TF may react to an enemy TF that appears to be moving to a base but not actually engage the enemy TF. This can occur if the enemy TF follows the "avoid potential surface combat" guideline and doesn't actually move into the base hex. There will be times when a Bombardment, Surface Action, or Fast Transport Task Force can end up in harm's way as the dawn arises, however. These include the task force being low on fuel or if the Task Force spends too much time engaging enemy vessels at the target location or if the **Do Not Retire** option is selected. The player might note that some Task Forces will not be able to approach closely enough to attempt the Mission. These would include Bombardment, Surface Action, or Fast Transport Task Forces with the **Retirement Allowed** option selected, which do not have sufficient speed to make it into and out of the target area in one night. These will hover at the best range they can reach and await further orders. Ships of speed less than 25 knots will frequently have this problem.

## 6.1.11 Impact of Roles on Auto-Created TF's

When selecting to create a new TF from a base hex, an **Automatic Ship Selection** option appears on the TF Mission selection window. When set to **On**, the computer selects your ships during TF Creation and a list of eight Roles will appear next to the 12 Primary Missions. These Roles only exist to allow the computer to better refine its ship selection when creating a TF. A PT boat task force is always a role of a Surface Combat TF.

The eight Roles for TF Missions are:

- **Transport – Cargo**
- **Transport – Barge**
- **Transport – Air Transport**
- **Air Combat – CV Escort**
- **Transport – Amphibious**
- **Surface Combat – PT boat**
- **Transport – Tanker**
- **Mine Warfare – Minesweeper**

The following table illustrates how the above Roles influence the computer's decisions when automatically creating a TF for you:

<b>Transport</b>	All-purpose transport TF with transports and escorts
<b>Transport-Cargo</b>	Similar to Transport but not as well protected with escorts
<b>Transport-Air Transport</b>	Only CVE's and escorts
<b>Transport-Amphibious</b>	Similar to Transport but with more escorts and prefers amphibious type transports if available
<b>Transport-Tanker</b>	Similar to <b>Cargo</b> , but including TK's
<b>Transport-Barge</b>	All barges.
<b>Fast Transport</b>	Destroyers and Japanese CL's and APD's
<b>Replenishment</b>	AO's and escorts
<b>Air Combat</b>	All sizes of aircraft carriers plus surface escorts
<b>Air Combat-CV/escorts</b>	Only CVE's and escorts
<b>Surface Combat</b>	Major warships for surface combat.
<b>ASW Combat</b>	Smaller than DD anti-sub ships, but will use DD's if DE's and below are not available
<b>Surface Combat-PT boat</b>	All PT boats



<b>Mine Warfare</b>	Minelayers
<b>Mine Warfare - Minesweeper</b>	One MSW or DMS ship
<b>Bombardment</b>	Major warships for bombardment
<b>Sub patrol, sub minelaying, sub transport</b>	Single submarine
<b>Escort</b>	NOTE: The computer will not select ships for you automatically with this Mission – they will have to be selected manually.

## 6.1.12 Assigning TF Destinations

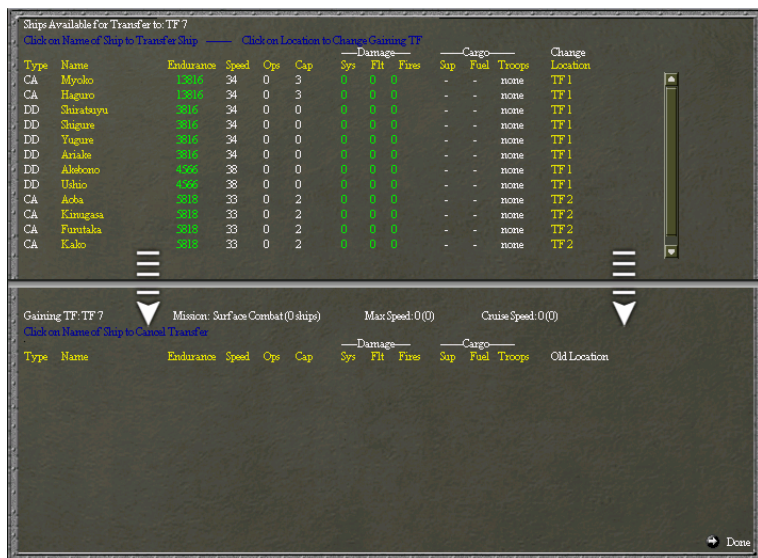
Task Forces are assigned Destination Hexes in the TF Information Screen. Destinations can be geographical, or a TF can be told to simply to follow another TF wherever it goes. Unless following another TF, or simply a Surface Combat TF defending its home base, TF's without a DH set will not be able to carry out their Missions. The DH can be any coastal or ocean hex.

### 6.1.12.1 Follow Task Force

A TF given **Follow Task Force** orders has the same destination as the targeted TF, although the TF Information Screen will not list a DH it. If **Follow Task Force** is selected, the Tactical Map is brought up. Click on the TF icon that you want the current TF to follow, and it will return to the TF Information Screen. During movement, it will always move so as to stay in the same hex as the TF it is following if possible. If the following TF is not fast enough to keep up, it will try to stay as close to the leading TF as it can. However, there are times when a TF might not move toward its destination. In certain situations, A TF set to Retirement Allowed will ignore its DH in an attempt to avoid enemy warships. If the TF is temporarily attempting to avoid the enemy, the DH will not change on the TF's Information Screen. As long as the enemy threat exists, the TF may continue to ignore its DH. If you want the TF to ignore this danger, change the TF's Patrol/Retreat Status to Patrol/Do not Retire.

## 6.1.13 Transferring Ships Between Task Forces

Ships in Task Forces that are in the same port or sea hex may transfer ships between themselves. TF's may also transfer ships to bases and vice-versa. New TF's may also be split off. Only ships that are appropriate for a particular Mission will be allowed to be transferred into a TF. To add ships from a port or TF to another



TF or port, click on the ship in the top half of the screen. If you make a mistake, you can click on a ship in the bottom screen and reverse the process. For example, in the scenario 'Road to Munda' the screenshot above is the Noumea base with TF 209 and 208. TF 208 now has six vessels in it – two Battleships and four Destroyers.

## 6.1.14 TF Returning to Home Base

There are several events that will cause a TF to automatically return to its home base. These events are:

1. If a TF is low on fuel and it cannot immediately refuel, or does not have a replenishment TF attempting to follow it. If the TF is a Transport or Fast Transport Mission with cargo and in its Destination Hex, it will not return to home base.
2. At the moment a Transport or Fast-Transport TF unloads all of its cargo.

3. If the TF is at its DH and none of the following conditions are true:
  - 1) the DH is not its home base,
  - 2) it is not following another TF,
  - 3) it is not currently loading or unloading,
  - 4) it is not a Sub Patrol Mission, and
  - 5) its Patrol/Retreat status is not Patrol/Do Not Retire.
4. A TF aborts its Mission due to being or having slow/damaged ships split off from the TF attacked (much more likely in either case if the TF has a Retirement Allowed order).
5. An Air Combat TF has no carriers that can launch aircraft remaining in the TF. When a TF decides to return to its home base, it will set its DH equal to its home base and it will also cause the TF's Patrol/Retreat status to be set to Retirement Allowed. When a bombardment TF decides to return to its home base it will automatically switch its Mission to Surface Combat. Again, an aborted TF can be given a fresh destination and orders in the next Orders Phase.

It is important to have a thorough understanding of the above conditions that will send a TF heading for home. Also, keep in mind that you can redirect a TF that has aborted its Mission by setting a new DH for the TF in your next Orders phase. Be sure to check the orders of TF's that have just been in combat or you may find them prematurely leaving the scene of action. TFs

## 6.1.15 Routine Convoys and Computer-Controlled TF's

Task Forces with a Sub Patrol or Transport Mission can be placed on computer control (as are any TF's located in a Control Zone run by the computer).

A Transport Mission that has a destination set can be set to computer control. If this occurs the TF will load its specified materials and move to the Destination Hex selected. At that point it will automatically unload everything and then return to its home port to reload and begin the procedure again. In this manner, the TF will enter 'Continuous Supply' mode and will continue to transport the specified materials until told to do otherwise by the player. TFs in a Continuous Supply mode will be set to Retirement Allowed, which cannot be changed.

**This is a good way to keep rear-area bases supplied without a large fear of loss. However, the player should not set a Transport TF to this mode and ignore the ships; system damage, represented by wear and tear on the vessels, will accumulate and the ships will need time to repair such damage periodically.**

The TF Information Screen will display this order as **CS: Base Name** where it would normally display Computer Controlled. In this way you can set up a convoy that will continue to repeat to a specific location.

## 6.1.16 Submarines

Submarines are sent on patrol as a TF, usually with only one sub in each one. The computer can assign patrol orders, or you can choose to give it a DH yourself. Missions for submarines are Sub Patrol, Sub Minelaying, and Sub Transport. A good strategy for using submarines is to send them to choke points, or patrol near major enemy supply areas. With the Automated Submarine Operations option turned on, the computer will take care of creating sub TFs and will send them

on patrol so you don't have to order them individually (although you can still take any sub TF off of computer control). For greater realism, Japanese subs can be set to use the Japanese Sub Doctrine (see section **2.2.1 Japanese Sub Doctrine**).

## 6.1.16.1 Auto Creation of Submarine Task Forces

If the **Auto Submarine Ops** function in the Options Menu is activated, the computer will handle submarine options by periodically sending submarines out on patrol from major bases, and repositioning submarines into different home bases as it deems fit.

**Submarines are much easier to locate and damage when they are in shallow water hexes as opposed to deep water hexes.**

When building a sub TF, the computer picks one submarine in port and places it in a Sub Patrol TF. When these Task Forces are created, the computer will assign them a DH and it will be placed under computer control. Submarine TFs created by the computer will already have a DH, but you may at any time give them a new DH. However, once a computer controlled sub patrol TF reaches its DH, it may decide on its own to move to a different shipping lane in an attempt to locate targets (it will even attempt to follow enemy Task Forces that it spots). You need to switch the TF to Human control in order to keep a sub patrol TF at a particular DH (at least until a good target comes along that the sub TF decides to follow).

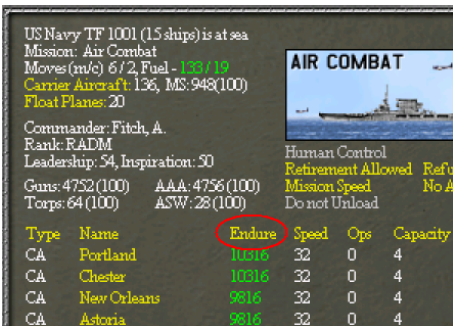
A good way of using Sub Patrol TF's is to form a sub patrol TF with one submarine, give it a Destination Hex within a few hexes of a major enemy base, and then put it on computer control. The DH will serve as a starting point for the submarine, but it will then move on its own to where it can best find a target. This can also be used in conjunction with the Auto Sub Ops preference, as at any time you can change the DH's of computer controlled TF's already at sea in order to concentrate your submarines at a critical area of operations. Japanese submarines were historically very successful in late 1942 hunting Allied ships just southeast of Guadalcanal (an area that became known as Torpedo Junction).

## 6.1.17 Ship Endurance

Ships use fuel whenever they move. In *War in the Pacific - The Struggle Against Japan, 1941-45<sup>TM</sup>*, each ship is rated for how much fuel it can hold as well as its maximum endurance, which is the number of miles the ship can travel at cruising speed. The TF display shows the amount of endurance remaining for each ship in the TF. A ship with no endurance left will cause its TF to have a maximum movement speed of one hex per naval movement phase.

# WAR IN THE PACIFIC

The Struggle Against Japan 1941 - 1945™

US Navy TF 1001 (15 ships) is at sea Mission: Air Combat Moves (m/c) 6 / 2, Fuel - 133 / 19 Carrier Aircraft: 136, MS: 948(100) Float Planes: 20 Commander: Fitch, A. Rank: RADM Leadership: 54, Inspiration: 50 Guns: 4752(100)    AAA: 4756(100) Torps: 64(100)    ASW: 28(100)					
					
<b>AIR COMBAT</b> Human Control Retirement Allowed Refuel Mission Speed No A Do not Unload					
Type	Name	Endure	Speed	Ops	Capacity
CA	Portland	1116	32	0	4
CA	Chester	10316	32	0	4
CA	New Orleans	9816	32	0	4
CA	Astoria	9816	32	0	4

Whenever a ship moves in a TF, it draws on its Endurance, which in turn subtracts from the amount of fuel carried. Fuel is expended when:

- A ship moves the entire turn at or below its Cruising Speed (the cruise speed for the ship in hexes as specified on each Ship Information Screen); this ship will use up Endurance equal to 60 times the number of hexes moved.
- For *each* hex moved over the ship's Cruising Speed, the ship will expend an additional 360 endurance per hex. The cruising speed of the TF in hexes is figured by the Cruising Speed of the slowest ship in it. Since each ship checks the TF move against its own Cruising Speed, ships in the same TF can use up different amounts of Endurance in the same move.
- Each ship in a TF that is **not** docked also expends a small amount of Endurance every turn equal to 60 times the ship's cruising speed in hexes (i.e. it is assumed they are constantly moving at cruising speed even if they aren't moving to other hexes).
- For every plane that is launched on a *Strike Mission* from a TF, the ships in the TF expend one Endurance.
- For every *three* planes launched on a *Search* or *CAP Mission*, the ships in the TF expend one Endurance.
- Every ship in a TF that is involved in surface combat expends 200 Endurance.
- Whenever a TF is bombed or strafed, all ships in the TF expend one Endurance per attacking plane. If a ship in a TF is judged not to have enough Endurance remaining to be able to move to its Destination Hex and then return to its home base (at Cruising Speed), the TF is considered to be "Low on Fuel."

**The program will deduct a certain amount of fuel depending on how much Endurance a ship has expended. Calculating fuel usage for your ships is unnecessary. More important is to ensure that you send fuel to your advanced ports so your ships can replenish.**

When Low on Fuel, the TF will attempt to refuel at sea, either from a Replenishment TF that is following it or from any fuel source in its hex. If a TF judges itself to be Low on Fuel, it will not move over Cruising Speed, even when its Mission and Patrol/Retreat Status would otherwise have had the TF moving faster. This can seriously jeopardize a TF's Mission as it may stay at a distance from a DH that the TF intends to sprint towards at night and refuel rather than move toward the DH. Under some circumstances this could repeat over several turns causing the TF to never successfully complete its Mission (it heads for home once no ships are left to refuel low-fuel vessels).

## 6.1.17.1 Refueling in Port and at Sea

**Be sure not to put ships with low fuel capacity into TF's that will not need to move at maximum speed, especially when its DH is very far away. Ships with speeds of greater than 25 and Endurance under 4,000 will have difficulty performing almost any Mission that calls for maximum speed on the way to a DH further than 500 miles away. Also be very careful sending Destroyers (especially Japanese DDs) on very long distance Missions that will require maximum speed (unless they refuel from larger ships or oilers while en route to their destination).**

Ships can refuel in any friendly base that has fuel (the amount of fuel is listed in each Base Information Screen). The act of refueling in port automatically docks the TF, fills each ship to its maximum Endurance (assuming there is enough fuel at the port to do this), and replenishes each ship's ammunition. Ships may also refuel at sea, if there is a friendly ship in the same hex that has sufficient fuel to be a source of fuel. When a TF refuels at sea, each ship in the TF, one at a time, attempts to find another ship in the hex to serve as its fuel source. AO and TK ships can use their fuel cargo to refuel ships at sea. Other ships carrying a large quantity of fuel (ships with high endurance, not fuel cargo) may be used to refuel ships that are low on fuel, but the ship providing the fuel will never give fuel such that it's current fuel on board drops below the maximum fuel capacity of the ship being refueled.

Refueling, both in port or at sea, takes time and may slow down or prevent the TF from moving during the 12-hour period in which the refueling occurs.

Some refueling occurs automatically during the resolution phase, but refueling that is ordered during the Orders Phase happens the instant the order is given (assuming a source of fuel is available for refueling).

## 6.1.17.2 Operation Points

Operation Points (or OPs) reflect the time spent on refueling, replenishing ammo, and loading and unloading of cargo. These actions reduce the movement of a TF during a Resolution Phase. During an Orders Phase, if a TF refuels or is ordered to load troops, the TF Information Screen will reflect the amount of time already used in Operation Points. Every TF has 1000 Operation Points in each 12 hour Resolution Phase. Thus, if a TF refuels and the display shows a ship has used 300 Operation Points, 30% of the 12 hours (300/1000) has been expended. This means the Task Forces speed in hexes will be reduced by 30% for the first 12 hour Resolution Phase resolved after exiting the Orders Phase. If a ship has any ammo replenished, it will use 1000 Operation Points. Ships that use 1000 OPs will still be allowed to move a minimum of 1 hex in the phase.

## 6.1.17.3 Docking

TFs may dock at a friendly base (this is different from ships anchored at a port because they're not assigned to a TF). Any TF loading or unloading at a friendly base is automatically considered to be docked. Ships that are docked do not suffer operational damage and will be able to repair damage faster than if at sea, but they will also be easier to hit by attacking aircraft.

Docked TF's do not use Endurance, but they will automatically respond to enemy naval forces (both reaction moves and to engage an enemy fleet in the same hex), in which case they will no longer be docked.

## 6.1.18 Creating PT Boats and Barges

Small combatants such as American PT boats were useful in narrow waters, while both sides made use of barges (LCVPs, LCMs, and AGs) for short supply hops between islands. However, these vessels had to be transported over the ocean to their new base.

To create a PT boat or barge:

- Form a **Transport** TF and load supplies onto it. Once this is done, at any time the TF may convert some of the loaded supplies to create a TF of barges or to create a TF of PT boats (there are no Japanese PT boats in the game) by clicking on the appropriate **Create Barge** or **Create PT Boats** arrow button. This is done from the TF Information Screen of the TF carrying the supplies.
- Build them from any base with a current port size of at least 1 and more than 10000 supplies.

When the barge or PT boat TF is created, it will consist of up to 15 barges or 12 PT boats if these ships are currently available to be brought into the game. As long as there are supplies carried by the creating TF and there are ships available, the TF can continue to create additional barge or PT boat Task Forces.

Supplies are used up for each ship created as follows:

- LCT – **60** Supply Points
- PT Boat – **50** Supply Points
- Large AG – **35** Supply Points
- LCM – **25** Supply Points
- Small AG – **20** Supply Points
- LCVP – **10** Supply Points

The number of barges and PT boats available to you can be found on the Ship Availability Screen accessed through the Intelligence Screen.

PT boats and barges act in all ways like all other ships. They can reload torpedoes at a port size 3 or greater as long as there are at least 20000 supplies at the port. Otherwise they can use PT Boat Tenders (AGP's) for supply (refer to **12.2.1 Depots and Tenders**).

## 6.1.19 Loading and Unloading Transports

Ships with a cargo capacity may load ground units, supplies, and fuel when in the same hex with the item being loaded (air groups and resources may be loaded on AK's only and oil may be loaded on TK's only). A TF must be instructed to load either fuel, supplies or troops on the TF Information Screen. TK and AO ships may only load fuel, and will always do so whenever part of a TF that is conducting any kind of loading operation.

If a TF is ordered to load troops, you will be shown a list of possible units that can be loaded, along with the carrying cost of each unit and the total cargo capacity of the TF. A TF loading troops will also load supplies if there is any available space in the TF after all the selected troops have been loaded, and if the base has abundant supplies. Transports can load troops without supplies by selecting the "Load troops only" option. Ships with a cargo capacity, but not TK and

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AO ships, use up 2 capacity points for every point of fuel loaded. Ships that do not have a normal cargo capacity, but can carry cargo in Fast Transport Missions, use up 4 capacity points for every point of fuel loaded. Each cargo carrying ship may carry a maximum of 1 ground unit. A ground unit will be broken into many sub-units if necessary in order to be loaded onto a TF (1/144 Rgt, 2/144 Rgt., etc.). Whenever sub-units of the same ground unit find themselves on land and in the same hex, they will automatically combine together.

The following table determines how much space each type of item takes up in each type of ship (supply column also represents resources, fuel also represents oil). **Note that the numbers below represent how many capacity points it takes to load one unit of the indicated item.** So, on a Cargo Ship (AK), 1 supply point takes 1 capacity point, 1 fuel point takes 2 capacity points, 1 infantry squad takes 6 capacity points, 1 artillery takes 2 capacity points, and so on. **No** indicates that the vessel may not transport that type of cargo.

**Note that AP's use only 1 capacity for 1 squad, but 3 capacity per supply point.**

Ship Type	Resources/Supply	Oil/Fuel	Infantry	Artillery	Vehicle	Tank
CL	3	No	1	3	No	No
DD	3	No	1	3	No	No
APD	2	3	1	2	3	No
AP	3	3	1	3	3	6
AG	2	8	1	2	3	6
LCM	2	8	1	2	2	2
LCT	1	8	2	2	1	1
LCVP	4	8	1	2	1	2
LSD	1	2	2	1	1	1
LST	1	2	2	1	1	1
LSV	2	2	1	1	1	1
LSM	1	2	2	1	1	1
LCI	3	No	1	No	No	No
AK*	1	2	6	2	2	4
AE	1	No	No	No	No	No
AO	No	1	No	No	No	No
TK	No	1	No	No	No	No

**\*AK ships may only load one air group per ship, and this is an instantaneous occurrence. A player loading an air group as cargo in this manner will then need to immediately order additional loading, if desired or if the TF is capable of loading extra materials.**

As you can see, some ships are much more efficient at carrying certain cargoes than others (e.g., an LCI is much more adept at carrying infantry squads than an AK).



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Other ships may transport items when assigned a Fast Transport Mission. The ships listed above carry at the same rates listed there no matter what kind of Transport Mission it undertakes. The following table details the carrying capacities of ships that can undertake Fast Transports:

Ship Type	Supply	Fuel	Infantry	Artillery	Vehicle	Tank
CS	1	2	6	2	2	4
AV	1	2	6	2	2	4
ML	2	3	1	2	3	No
DM	3	No	1	3	No	No
DMS	3	No	1	3	No	No
SS	3	No	1	3	No	No
BB	3	No	1	3	No	No
BC	3	No	1	3	No	No

Supplies are loaded at a rate of 200 times the port level (reduced by damaged but never less than 100) per day. Fuel is loaded at a rate of 1000 times the port level (reduced by damage, but not less than 200) per day. On the first turn of every scenario, however, all Load orders will be carried out instantaneously during the Orders Phase, accounting for preparation that goes back before the scenario's start.

**On the first turn of all scenarios, all load orders will be completed on turn 1, accounting for the preparation that occurred before the scenario began.**

No ship may load more than 10% of the supplies located on a base. For example, if there are 100 supplies on a base, no more than 10 may be loaded in any ship at that time.

Once a TF has started loading, it will not move until the loading is completed or you cancel the loading operation. The speed of the loading will depend on the size of the port (or lack of a port) at which the units are being loaded. If there is a port where the loading is taking place, the TF will dock. When a TF is ordered to load ground troops, it will begin loading the troops during the Orders Phase. Some troop loading will actually happen at the instant the order to load is given, and this will use up some of the Task Force's operation points. In this way you can see how the troop loading is going to be spread out among the transports. If a TF is ordered to load more troops than the capacity of the TF, the TF will attempt to add transports to the TF from port that will be sufficient to carry the troops to be loaded (up to the 25 ship maximum per TF).

**Before the loading command is given, a Destination Hex should be set; if one isn't, as soon as the TF finishes loading, it will commence unloading (it thinks it's arrived at its destination). Once loading is complete, the TF will begin moving to its DH. Unloading begins immediately if the Unload Cargo option is selected for the TF. If not, the TF will not unload anything when it reaches its destination.**

Fast-Transport Missions will only load what they can unload in one unloading phase, and they can only attempt to load one ground unit per TF.

Task Forces carrying cargo will automatically begin unloading once they reach their Destination Hex as long as it is a coastal hex. If unloading in a friendly port, the TF will dock. The speed of the unloading is dependent on the size of the port; the unload rate of supplies from a ship is equal to 100 times the port level (modified by damage) +400 per turn. So, an undamaged size 5 port would unload 900 units (troops, supplies, etc.) per turn.

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Unloading over a beach is much slower than unloading at a port, but the units being unloaded will do so in safety. Unloading over a *hostile* beach (i.e. a coastal hex that contains at least *one* enemy unit, or an enemy base or potential base {beach} even if empty of enemy units) will cause units being unloaded to suffer disruption, fatigue, and the disabling of some of their elements just from landing. This can be minimized by several items. Each transport type has a value for its amphibious capability. The better the value the faster the unloading time and the less the units unloading will be adversely effected when unloading. Also, units can prepare to invade an objective and build up prep points toward the target that will minimize the adverse effects. Also, a HQ in the same hex as the target and that has the target designated will minimize the adverse effects (both by its amount of preparation and its leader value).

An AGC type ship with the controlling HQ for the invasion (AGC's can only load Amphibious Force HQ's) on board will help minimize the adverse effects when located in the same hex as the invasion/unloading of troops. Amphibious Force HQs provide a special bonus if they are the controlling HQ at the invasion.

The basic amphibious values for ship classes are as follows:

LST, LSD, LSV	100
LCVP, LCM, LCT, LSM, AG	75
AP, CS, APD	50
Japanese bonus through March 1942	+200

Units unloading in a hex where the base is not owned are shot at by coast guns, artillery and other lighter weapons such as mortars and AA guns. These units have a chance to hit the transport as well as a chance to hit the ground unit element(s) unloading. These enemy weapons may shoot at some of the unloading ships when it is determined that these ships need to come in close to the shore to unload their cargo. This is true for all the guns firing at ships. For example, APs are assumed to be standing far offshore putting the men in smaller landing craft that are not included in the game. Only large coast guns are likely to be able to reach these ships so they are unlikely to be hit. An LCVP is a small ship that must come in to shore, so just about any weapon could hit them. In addition to shots at the ships, troops are shot at separately by all enemy weapons (they are shot at just after they unload from their ships).

Enemy fire can be reduced by placing fire support ships in the transport TF that is landing troops. The best fire support ships are destroyers and various specialized landing craft equipped with rockets and/or mortars. These ships must be in the transport TF to minimize the defensive fire against unloading ground units and ships close to shore.

Once a TF begins unloading, **no ships will split off from the TF due to damage or slow speed until the TF has completed unloading all of its cargo.** Fast Transports and submarines unloading will not be slowed down by the act of unloading. Once a TF has finished unloading, it will return to its home base by changing its Patrol/Retreat Status to Retirement Allowed and setting its DH equal to its home base. Ships may, however, split off if they still contain cargo and before the TF begins unloading.

## 6.1.20 Naval Evacuations

Evacuations are a special type of amphibious transport. A Fast Transport TF may attempt to evacuate friendly forces from a location other than their current hex. To do this, order the TF to Load Troops and choose the **Pick Up Unit** option. This will allow you to select any *one* friendly

ground unit on the map. The TF will automatically set its destination to the hex containing the unit to be evacuated, and then conduct a Fast Transport Mission to that hex. It will arrive at night, and sprint oward home after performing a load that won't cost the TF any Operations Points. Only one ground unit may be picked up per TF. If you subsequently order the TF to Load Troops or you set a new Destination for the TF, the pick up will be canceled.

## 6.1.21 Special Aircraft Carrier Movement

Air Combat TF's that have not aborted their Mission and have at least 30 aircraft may automatically move one hex towards an enemy air combat TF after each Air Search Phase. Allied Task Forces between 2 and 4 hexes of the enemy will automatically move and Japanese Task Forces either 4 or 5 hexes from the enemy will automatically move. TF's with a **Max React** set to 0 will *not* make this move.

## 6.1.22 Naval Ammunition and Retreat

If a TF is judged to be "Low on Ammo," it will have its Patrol/Retreat status automatically set to **Retirement Allowed**. If the TF is at its Destination Hex, this will result in the TF returning home. A TF is considered to be "Low on Ammo" when the TF is an Air Combat, Surface Combat, or Bombardment TF and it is in a surface combat engagement and a ship in the TF has less than 6 main gun ammunition

## 6.1.23 TF Officers

Every task force has an officer in command. If the Auto Commander Option is not being used, no commander is assigned, and the captain of the flagship assumes the role. If the Auto Commander is on, an appropriate leader will be selected by the computer at no political point cost to the player. The player may see a written evaluation of the task force commander and may choose to replace him any time the task force is docked at a port. Officers have several characteristics, which can and will affect the TF's performance in combat, task force fuel consumption, morale, and other factors. These characteristics include aggressiveness, overall competence, inspiration to subordinates, skill in surface actions, skill in carrier actions, skill in invasion, and administrative skills. Although only overall competence and inspiration values are displayed on the screen, a written evaluation of the officer is available, which is formed from the other skills. This evaluation may change during the course of the campaign, depending on the fortunes of war. Selecting the correct task force commander can have a significant effect on how well the task force does.

The TF commander assignment menu can be accessed from the Task Force menu when the TF is docked at a friendly port. At such time, the TF commander's name will be printed in yellow. Clicking on the name will evoke a screen with a listing of available commanders on the left and an evaluation of the selected commander on the right side of the menu. All task forces will have, as the first leader in the list, the current Task Force commander. Following that, there will be a listing of all admirals of proper rank and time in grade to assume command. Clicking one of these names and selecting Done is all that is required to change the commander as long as the required political points are available. If the current leader is the ship captain of the flagship, it requires no political points to relieve him of command, but you must pay political points equal to 10 minus the political value of the new commander. If the current commander is not the flagship captain, additional political points equal to the current commander's political rating must be paid to relieve him.

**Note that rank is not an in-game factor and can be ignored for the purposes of deciding on whom to command your TF. Unlike the real world, none of your virtual officers have an ego to bruise by placing a lower-ranking officer in a position over them. If an officer is on this list, they are capable of command.**

Clicking a name also reveals the written evaluation on the left of the menu. The evaluation will indicate the overall competence and aggressiveness of the commander, as well as what type or types of TFs he will be best suited to command, although any commander can assume command of any type of task force, carrier, surface or invasion. Note that older, more experienced commanders will frequently enhance performance more than younger, less experienced commanders. Some task forces, such as surface task forces, may do better with more aggressive commanders. Others, such as cargo task forces, will do better with a more cautious commander.

Creating TFs at sea, by splitting off some ships from another TF, will generate a commander from the flagship in the new task force, generally the biggest ship. No commander may be assigned.

There is a 50% chance that a TF commander will be killed when the ship he is on sinks.

## 6.1.24 Shakedown Cruises

It is now useful to run a week or two long shakedown cruise, when a ship is first commissioned. Many ships come into the game with very small combat experience. Some of these include the sub chasers and gun boats. Sub chasers and mine sweepers have depth charges, but their skill is so low they never use them. It takes many attacks on the TFs they are escorting before they will fight back. The same is true to a lesser extent with Allied warships and night battles. To allow players to train their crews and gain experience, place them on a Shakedown Cruise.

A Shakedown Cruise is not a specific order that can be chosen, but rather an automatic action undertaken by the computer on your behalf. At the end of each day that a ship in a TF is at sea and has less than 15 Day or Night Experience, the deficient value is increased by +1. After that, they have a 1 in 5 chance of increasing Day Experience by +1 or a 1 in 7 chance for Night Experience by +1. The value keeps increasing until the *minimum value* for the ship class is reached, as follows:

- **25** for civilian vessels (such as Cargo Ships)
- **35** for non-combat vessels (such as Seaplane Tenders)
- **45** for semi-combat vessels (such as Corvettes, Sub-chasers, and sloop-sized ships)
- **55** for combat ships (such as Destroyers and Cruisers).

## 6.1.25 Naval Combat

Naval combat in the Pacific was a complex affair. Japan tended to have more experienced seamen as well as a remarkable proficiency in night fighting. However, the Americans learned fast, and their radar sets could be a match for the sharpest Japanese eyes. Battles were usually fought at night as surface ships avoided the daytime scrutiny of aircraft, and such combat often became a bloody, confused melee of flaming ships.

Naval combat takes place during different phases. Mine attacks are conducted during Movement Phases, submarine attacks can occur throughout the Resolution Phase (as ships and subs become targets by crossing the sub's path), naval bombardment occurs during Naval

Bombardment Phases, naval air combat only takes place during Air Operations Phases, and Coast Defense units may fire at enemy transport TF's unloading in their hex during Load/Unload Phases and enemy bombardment TF's bombarding during Naval Bombardment Phases.

There is a 50% chance that a TF commander will be killed when the ship he is on sinks.

### **Naval Combat Animations**

If Combat Animations are turned on, the Naval Combat screen will show surface actions as they are fought out by the ships present in the battle. Each side of the screen will have the appropriate ships present.

As shots are traded, the display indicates by water spouts, explosions, and text messages what is occurring on the screen. If you do not wish to watch the entire spectacle and instead skip to the end Combat Summary, click the **Done** button.

A combat results report will follow (if Reports are turned on) that details all participating combatants in the battle, as well as the results of the combat.

Following are some important considerations when it comes to Naval Combat:

#### **6.1.25.1 Surface Combat**

Ship-to-ship surface combat between TFs occurs during Surface Combat Phases. This is different than other types of combat in *War in the Pacific - The Struggle Against Japan, 1941-45™*. Surface naval combat occurs when warships with certain orders are in the same hex as enemy ships. Some basics of surface combat:

1. TFs spot each other, and maneuver at different ranges during combat.
2. Surface combat occurs at shorter ranges at night. Thus, daylight favors battleships, while nighttime favors ships carrying torpedoes.
3. Surface combat takes place as a series of rounds at different ranges as the forces close in and then disengage. As the two TFs approach, the range is given, firing commences, and the results are displayed.
4. TFs will attempt to close the range until enough damage has been taken without endangering the TF. If the combatants close the range, then range will get shorter, and attacks and damage will again be displayed. This will go on until one (or both) sides retire.
5. Surface combat involves the guns and torpedoes of both sides' ships and considers gun size, type of ship, armor, crew quality, radar, detection level, damage to ships, officer ratings, ship speed, etc. and hits are registered accordingly.
6. Surface naval attacks can cause incredible amounts of damage to enemy ships, especially if torpedoes strike home.
7. As TF's move away gunnery and torpedo combat still takes place until both TFs are out of range of each other.

You might wonder how ships fire at each other as they pass in the night. There are a number of factors involved in naval combat. TF commander ratings, ship captain's ratings, and crew experience are the most important of these. Radar, proximity to shoreline, type of fleet, ammunition loads, and a number of other factors are also considered.

# GAME MANUAL

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## **Contact**

Some TFs try to engage in surface combat, while others try to avoid such contact. Surface and Bombardment TFs will seek out enemy shipping. Radar is of use in finding the enemy TFs, as is the experience of the crew and aerial spotting. Once the TFs have closed, the range at which combat occurs is determined. Night battles always begin at closer range. This is especially true with Allied PT Boats, who try to hug the shore where possible and dart out at the last minute. This, and their small size, makes spotting them visually or on radar very difficult. The TF commander's aggressiveness rating is important in determining if the fleet will try to engage, as is the general condition of the TF and the perceived opposition. However, if the condition of one combat TF is especially weakened the other combat force will usually be more anxious to engage.

## **Fleet Tactics**

Every combat fleet will try to cross the "T" of the other fleet, thereby allowing most or all ships to fire with full broadsides, while only some of the enemy's ships can return fire (and not with all of their guns). This is especially useful in night battles, where the back ships in a column may not even be within spotting range of the enemy and thus will not take part. It is important to note that even though all ships in the opposing TF's are always shown on the combat screen, a ship can find itself not participating in a given combat round. Surface Combat TF's (including Bombardment TF's that determine they must abort their planned bombardment and immediately switch to Surface Combat) and Fast Transport TF's may attempt to cross the "T" if the range is under 2000 yards. This chance of crossing the "T" is increased by the naval skill of the TF commander.

The TF commander's aggressiveness is the critical factor determining when a TF will try to disengage and whether it will try to maintain contact with an enemy TF that is trying to disengage. Non-combat TF's will always try to disengage. It is also worth noting that Japanese combat TFs at night are especially good at getting all their ships to participate, especially during the early war period, and may have five or six ships firing while only one or two Allied ships return fire. Later, as American radar becomes more common and effective and Allied crew experience increases, this advantage is usually negated or reversed.

## **Gun Work**

If and at whom a ship fires is determined by several factors. The size of a ship's guns is a factor, in that the ship will attempt to engage ships it can reach. So, for instance, Destroyers will fire at those ships they can reach with their guns, usually other Destroyers or lesser craft, while Cruisers will usually fire at ships they can reach, usually other Cruisers or lesser craft. Ships will try to fire at the greatest perceived threat within gun range. In night battles, especially, the firing ships may not have a line of sight to the best target or the ship's skipper may decide to fire at a target of lesser import, or a ship that is firing at him. The captain may also choose to fire at a vulnerable target, such as a troop transport filled with troops, if the opportunity arises.

When the ship has a target and can fire, if the volley hits or not is dependent mostly on the weapon firing and the range, but also on crew experience and the captain's naval skill. System, flooding, and fire damage to the firing ship affect hit chances as does the speed and size of the target. Additionally, specific systems within the ship can be hit, so that once a gun is knocked out, it can no longer fire.

Fire damage from non-penetrating hits is determinant on the ammunition type. General purpose (HE), armor piercing (AP and APC), and semi-armor piercing (APHE) bombs, as well as incendiary and napalm, are all accounted for by the computer. Extra damage dependant on weapon type, penetration, and effect. Extra damage applies to bombs and gun fire. Non-penetrating hits may also do system damage.

## **Note on Torpedo Duds**

In January 1943, all torpedoes with a dud rate of greater than 49 have their dud rates reduced by 20. In September 1943, all torpedoes with an adjusted dud rate greater than 20 have their dud rates lowered to 10. Allied torpedoes were notoriously inefficient in the early stages of the Pacific War, and this rule reflects their slow but steady improvement over the years.

## **6.1.25.2 Ship-to-Shore Bombardment**

This occurs during a special Bombardment Combat Phase. To perform ship to shore bombardment, a TF must be operating with a Bombardment Mission. Bombardment combat consists of naval gunfire on land targets and is similar to land combat. Naval bombardment gunfire is more likely to target airfields, base structures, enemy ships at anchor, and coast defense units than it is to target other ground units. Naval bombardment is the only means by which ships may attack enemy ships at anchor.

## **6.1.25.3 Submarines and Anti-submarine Warfare**

Submarines may attack any ships, although generally not PT boats and barges, in the same hex as long as the ships are not docked or at anchor at a port with a current size of at least 3. They may surface and shell barges. If Japanese Submarine Doctrine is selected, Japanese submarines will attempt to attack combat ships and generally avoid attacking non-combat ships.

The sub attack sequence is as follows:

1. Chance for early detection of the sub by the TF escort
2. Sub attack
3. Sub dive to escape
4. Escort attack

If the sub is detected early, there is no attack by the sub, which dives and then suffers an ASW attack.

The chance of a submarine attacking a TF varies with the:

1. Sub's maximum speed
2. TF's cruise speed
3. Sub crew's experience
4. Prior detection of the sub

Most sub attacks will use torpedoes only, but the sub may conserve torpedoes and use its deck gun against unescorted non-combat ships. The effectiveness of a TF's escort is determined by its:

1. Maximum speed
2. Crew experience
3. ASW weapons
4. The total number of escorts in the TF

At night there is a small chance that the escort may use gunfire to attack a sub which is considered to be running on the surface

Prior to 1944, Allied crews perform ASW functions during daylight at 114% of their crew rating, and at night at 150% of their crew rating (except for British crews which get no bonus at night as they generally already have extra high night experience). Prior to 1943, Japanese crews perform their ASW functions at 67% of their crew rating, while in 1943 and thereafter they perform at 80% of their crew rating.

## 6.1.25.4 Damage to Ships

Damage to ships is marked in orange (less than 50 percent damage) or red (more than 50 percent). Ships can sustain 6 types of damage:

1. **System Damage (Sys)** is a number between **0** and **99**. A rating of **0** indicates all systems on the ship are functioning at full effect with no damage, while **99** indicates the ship's systems are **99%** damaged. The *greater* the system damage, the *less* effective the ship will be in all aspects of combat.
2. **Flotation Damage (Flt)** is a number between **0** and **100**. Flotation damage represents the amount of flooding on a ship. When Flotation damage reaches **100**, the ship will sink.
3. **Fire Level Damage (Fires)** represent the intensity of any fires currently burning on a ship. A **0** indicates no fires burning while a value over 40 represents very large fires burning.
4. Individual **weapon systems** may be destroyed. When a system is destroyed, it will no longer be listed on the Ship's Information Screen. These systems may be repaired if at anchor in a port with a current size of at least 5 (the larger the port and the smaller the weapon system, the quicker the repair time).
5. The **maximum speed** of a ship may be reduced as a result of both system damage and flotation damage. The maximum speed of the ship is updated every time the system damage or flotation damage increases or decreases.
6. Ships may suffer Critical Hits, which cause more damage than normal hits.

There is also a 4% chance that every Critical Hit endured by a ship will cause its immediate destruction.

Ships too far away to target or hidden by fire, smoke or another ship will have no name printed on screen until identified.

A ship with any flotation damage or fires on board may suffer additional damage of any kind as a result of flooding/fire/explosions during each turn. Each turn all ships attempt to repair Sys, Flt and Fires. It is much easier to repair damage in a port. The amount of repairs made as well as the likelihood of additional damage is impacted by the amount of current damage, the experience of the crew, and if the ship is in port, the size of that port.

## 6.1.25.5 Operational Damage and Repairs at Sea

Whenever a ship is at sea (not docked), it has a chance of suffering system damage due to wear and tear on the ship. This damage can occur as the TF enters each new hex, and will immediately affect the TF's speed for the rest of the turn. Ships moving at maximum speed will suffer greater



Operational Damage than ships moving at Cruise Speed. In addition, ships always attempt to repair fire, flooding, and system damage, even when at sea.

The chances of incurring System Damage during normal movement (representing normal wear and tear on the ships) is 1 in 90 for every hex entered at Cruise Speed, and 5 in 90 for every hex entered at Full Speed.

## 6.1.25.6 Home Base for Refit/Repairs

When the Production option is turned off and a partial map is being used, each nationality will have a Home Base automatically assigned that the ship travels to when traveling off map:

- Australian goes to Sydney
- New Zealand goes to Auckland
- Japanese goes to Tokyo
- US types, China and Philippines goes to Pearl Harbor
- Soviet Union goes to Murmansk
- Other Allied nationalities goes to England

## 6.1.26 Mine Warfare

Minefields are created by DM, ML, and SS ships laying a minefield. Multiple minefields can exist in the same hex, and whenever a TF enters a hex with minefields, each minefield in the hex has a chance of causing damage to the ships in the TF. As minefields are detected, the chance they will do damage to Task Forces declines. The greater the number of mines in a minefield, the greater the chance a mine will hit an enemy ship (there is a small chance that a ship will hit a friendly minefield, but this is very unlikely). Whenever a DMS or MSW ship enters a hex with an enemy minefield, it attempts to clear the minefield by destroying the mines (they can also clear minefields in adjacent hexes if they are patrolling in a Mine Warfare TF). If a Mine Warfare TF is clearing mines in a hex that contains coastal guns, the TF may be fired on.

The number of mines in a minefield in deep water decays by 50% per day, in shallow water by 5% per day, and in friendly bases with at least a size 1 port by 1% per day. Mine layers and submarines may rearm at any level 9 or 10 port with supplies or at any base with an MLE ship.

The number of friendly mines are now displayed in a friendly port at ports of size 1 or greater (on the base display screen).

## 6.1.27 Submarine Warfare

Submarines may attack on the surface or submerged. If the target of the attack does not look threatening to the submarine's skipper, he may attack on the surface. He is much more likely to try this at night, when escorts have difficulty spotting him. Submarines may also attack submerged if the taTF has surface combat ships or it is a day attack. The effectiveness of a submarine attack depends on the weapons being used, the submarine captain's naval skills and the skill level of the crew. Unlike surface ships, most allied submarine crews start the war well trained for night attacks. Escorts may spot a submarine before it makes an attack or afterwards (or not at all) and will fire at a surfaced submarine, the periscope (seldom works) or may make a depth charge attack. The escort's weapons, captain's naval skill and escort's crew skill determine the effectiveness of the anti-submarine attack. A submarine's durability is a function of its

maximum diving depth, and this will greatly impact the effectiveness of any anti-sub attack as well. When in coastal waters, submarines may not be able to take full advantage of their maximum depth. Depth charges can be brutal and end a submarine very quickly. This makes attacking a Surface Combat or Air Combat TF with many escorts far more dangerous than attacking a small, unescorted cargo task force. Ships with anti-submarine weapons, such as destroyers or patrol boats are always searching for submarines, but the submarine's skipper usually determines if an encounter occurs. Please note that submarines may also be used for transporting supplies, fuel, troops or mines.

## 6.1.28 Coast Gun Fire at Passing Task Forces

Every time a TF enters an enemy base hex, enemy coast guns in the hex may fire at the ships in the TF. TFs will generally try to avoid moving through enemy base hexes when selecting their movement paths so as to avoid this kind of attack, if possible. A TF ordered to move to Manila (43,52) would find that it must move through the Bataan (42,51) hex to get to Manila. This will allow the coast guns of Bataan to shoot at these ships as they sail by.

## 6.2 BRITISH WITHDRAWAL

To reflect the desperate need for combat ships in the Atlantic by the British side, the player will need to withdraw British ships from the game every month if it is deemed necessary by the computer; on the first of each month it will calculate which ships, if any, the human player must withdraw from the game for a period of time. This period ranges from 1 to 1.5 years. If a ship is withdrawn and returned in this manner, it is subject to this Withdrawal rule again when it reappears on the map.

This determination is done for each class of British ships operating in the Pacific (CV, CVL, CVE, BB, BC, CA, CL, CLAA and DD). No more than 1 major (non-DD) ship must be withdrawn, and if 1 needs to be withdrawn, 2 DDs will need to be withdrawn with it as escorts.

If the ships are not withdrawn on time (by the end of the month that the withdrawal is called for by the computer), then the player must pay Political Points as follows:

<b>CV</b>	2000
<b>CVL</b>	1200
<b>CVE</b>	1200
<b>BB</b>	2000
<b>BC</b>	2000
<b>CA</b>	700
<b>CL</b>	500
<b>CLAA</b>	500
<b>DD</b>	300

If the player does not withdraw the required ship(s) on time, whether on purpose or accidentally, the above Political Point cost will be deducted from their Political Point pool, and the ship(s) will remain in the Pacific. It is possible to go into negative Political Points in this manner, but this will affect other actions requiring Political Points. On the Allied Intel Screen you is displayed a British Withdraw section and a list of ship classes that require withdrawal with the number of the class needed and the number of Political Points lost if one of the ships is not withdrawn..

To withdraw a ship, the ship must be in Karachi, Bombay, or San Francisco and must have less than 50 system damage. It must be a British Nationality ship. If these conditions are met there should be an option on the ship detail screen that allows for Withdraw Ship From. The ship will be given a delay of between 1 and 1.5 years before they return.

## 7.0 AIR UNITS

"Tora, tora, tora!"

- Captain Fuchida Mitsuo (at the attack on Pearl Harbor, 1941; „Tora“ means tiger in Japanese)

Air units generally depict squadrons of the same type of aircraft. They are differentiated graphically by the aircraft type of the planes in the unit. Aircraft types include:

The following icons appear on the Hex Command Display. Their background colors will change based on the side using them (red for the Japanese, etc.)



**Fighters** are employed to gain air superiority over a battle by shooting down enemy aircraft. They are generally fast and highly maneuverable.

**Fighter-Bombers** can fly either fighter- or bomber-type Missions, but are not as good at either as their specialty counterparts.

**Dive-Bombers** attack ground and naval targets by diving straight in on their targets from high altitude.

**Level bombers** also attack ground and naval targets, but carry a higher payload of bombs than their dive bombing cousins. Since Level Bombers fly straight and level, though, they are less accurate.

**Float Fighters** are equipped with floats in order to land and take off from the ocean. They're not as powerful as regular fighters, but their versatility make up for this.

**Transport** aircraft ferry troops and supplies.

**Patrol** aircraft are seaplanes used primarily to search for enemy ships.

**Float** planes are ship-based planes used for antisubmarine patrol and naval search.

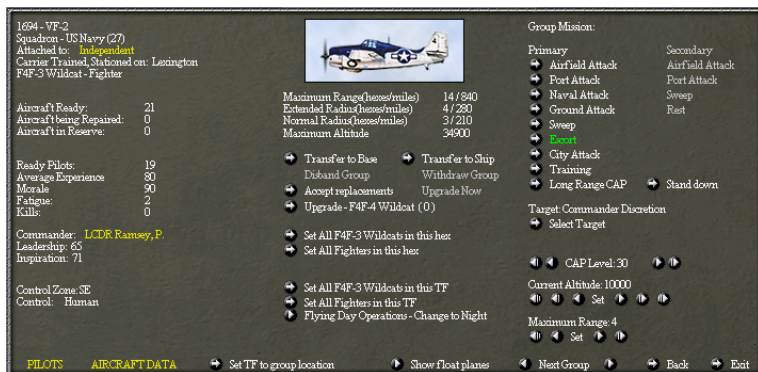
**Reconnaissance** planes have extraordinarily long range and are used exclusively to spot enemies.

**Torpedo Bombers** attack naval targets by flying in low to the water and dropping their torpedo payloads very close to the enemy.

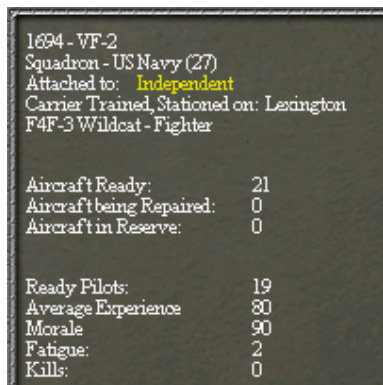
Aircraft squadrons are never (except for some Float planes) found directly on the map. They can only be seen at airfields or aircraft carriers and in battle.

## 7.1 AIR UNIT INFORMATION SCREEN

By selecting an air unit, the Air Unit Information Screen will appear.



In this example, we're looking at Squadron VF-2, a fighter squadron based on the *Lexington*. A thumbnail image of the aircraft appears at top center.



At upper left, information regarding the unit's nomenclature and service location is listed. From this example we see that this is Squadron **VF-2**, a **US Navy** squadron, acting as an **Independent** command. By clicking on Independent, we can see that this unit may be attached to any command available in the game. The number 27 indicates the Max Ready Aircraft, which is the maximum number of aircraft that can be ready at one time for this unit.

**1694 is this unit's identification number that identifies the unit in the Editor. Refer to the Editor Documentation for more details.**

VF-2 is **Carrier Trained** (meaning its pilots know how to operate their planes from a carrier), is stationed on the *Lexington*, and is comprised of

**F4F-3 Wildcat** fighters. There are **21** aircraft ready in the squadron (i.e., ready for combat operations), and no aircraft are being repaired (having been damaged in combat) or in reserve (extra aircraft to replace those lost or seriously damaged in combat).

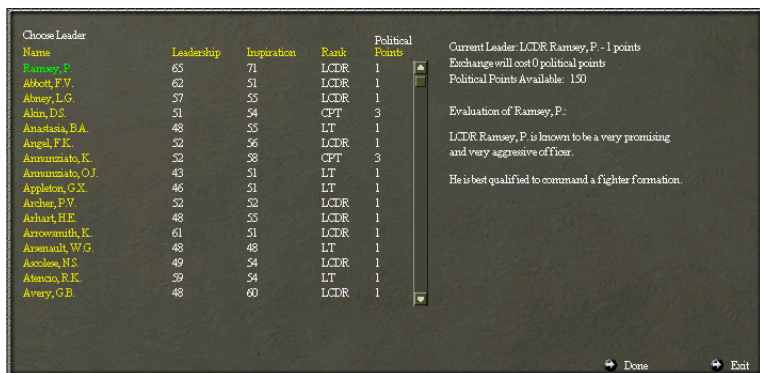
# WAR IN THE PACIFIC

The Struggle Against Japan 1941 - 1945™

The number of ready pilots is **19**, and their average experience is **80** and morale is **90**. Their fatigue level is **2**, and they have not made any kills (i.e. have not shot down any enemy aircraft) yet.



At left bottom, we see that the commander of this squadron is **LCDR Ramsey, P.**, whose Leadership rating is **65** and Inspiration rating is **71**. He can be replaced by clicking on his name, which brings up a new screen:



At left is a list of all the officers that can take control of this squadron, as well as each of their **Leadership** and **Inspiration** ratings, **Rank**, and **Political Point** cost to assign them (which is the cost of the current officer plus 10 minus the cost of the new officer incoming, if any – so, the higher the Political Point cost for an officer, the cheaper he is to hire for the job, and the more expensive he is to fire).

At right is a list of information for the current leader, which details his name, his Political Point cost, how many Political Points are available to you, and a short evaluation of the leader. As we can see in this example, Commander Ramsey, P. is evaluated as being best qualified to command a fighter formation. To replace Commander Ramsey, click on a name from the list and click the arrow next to Done at bottom right. The number of points the new officer cost will be deducted from the player's Political Points pool.

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Continuing with the Information Screen example, we find that the squadron is located in **Control Zone SE** (or Southeast), and is under **Human** control.

**Note that Carrier Capable air units landing on a carrier will suffer higher operational losses than a Carrier Trained units. Only Carrier Capable or Carrier Trained air groups may land on a carrier.**


Furthermore, at the bottom, a list of **Pilots** may be brought up by clicking on the Pilots text:

VF-2 is flying the F4F-3 Wildcat and has 19 pilots, Average Experience: 80, Average Fatigue: 2, Total Kills: 0

Rank	Name	Exp	Fat	Mis	Kills	Nat
ENS	Sanders, H.	81	11	1	0	US Navy
ENS	Bull, R.	70	2	1	0	US Navy
ENS	Roswell, R.	68	0	1	0	US Navy
ENS	Clark, H.	68	7	1	0	US Navy
ENS	Peterson, D.	67	3	1	0	US Navy
ENS	Mason, N.	67	8	1	0	US Navy
ENS	Rimhart, C.	69	6	1	0	US Navy
ENS	Johnson, B.M.	86	5	1	0	US Navy
ENS	Harris, L.E.	88	2	1	0	US Navy
ENS	Goffin, R.J.	86	1	1	0	US Navy
ENS	Gabriel, F.T.	86	0	1	0	US Navy
ENS	Doner, L.E.	86	3	1	0	US Navy
ENS	Barnard, L.G.	86	1	1	0	US Navy
LT	Pean, W.A.	89	0	1	0	US Navy
LT	Carmichael, D.A.	91	2	1	0	US Navy
LT	Banks, J.L.	87	1	1	0	US Navy
LTJG	Van Haren, A.	87	0	1	0	US Navy
LTJG	Rumyon, D.F.	89	1	1	0	US Navy
LTJG	Redmond, E.D.	87	0	1	0	US Navy

Next Group Done

This list of pilots will show all currently assigned to the squadron, including their **Rank**, **Name**, Experience (**Exp**), Fatigue (**Fat**), number of Missions flown (**Mis**), number of air-to-air victories (**Kills**), and their nationality (**Nat**).



Maximum Range(hexes/miles) 14 / 840  
 Extended Radius(hexes/miles) 4 / 280  
 Normal Radius(hexes/miles) 3 / 210  
 Maximum Altitude 34900

☐ Transfer to Base    ☐ Transfer to Ship  
☐ Disband Group    ☐ Withdraw Group  
☐ Accept replacements    ☐ Upgrade Now  
☐ Upgrade - F4F-4 Wildcat (0)

☐ Set All F4F-3 Wildcats in this hex  
☐ Set All Fighters in this hex

☐ Set All F4F-3 Wildcats in this TF  
☐ Set All Fighters in this TF  
☐ Flying Day Operations - Change to Night

The central column displays the following information:

- A picture of the aircraft
- Maximum Range** in hexes and miles (in the above example, **14 / 840**, meaning **fourteen** hexes and **eight hundred forty miles**)
- Extended Radius** in hexes and miles (**4** and **280**, respectively)
- Normal Radius** in hexes and miles (**3** and **210**, respectively)
- Maximum Altitude**, displayed in feet (**34900**)

Also, several orders may be given to the air unit in this column, including:

- Transfer to Base**, which will bring up a new list that allows the player to select a destination from the list, or select a

destination from the map. If no destinations are listed, then none are in range for this aircraft squadron.

If this option is selected a new screen will be displayed:

Pick Destination Base for 21 x F4F-3 Wildcat							TRANSFER
Name	Supplies	Range	Groups	Size	Aircraft	Support	
Koumac -r	930	1	0	1	0	0	
La Foa -r	854	2	0	1	0	0	
Luganville -r	2000	8	0	2	0	0	
EFate -r	9959	8	1	4	9	0	
Marfak Island -r	0	10	0	1	0	0	
Niimi -r	0	11	0	1	0	0	
Noumea -r	6531	3	1	6	12	90	

Select on Map Done

Any bases in range will be listed here, along with the number of **Supplies** located there, the **Range** in hexes to that base from the squadron's present location, the number of other aircraft **Groups** (or squadrons) located at that base, as well as the base's **Size**, number of **Aircraft** present, and amount of available **Support**.

The -r designation identifies bases that the air unit can transfer to *overland* (by being crated up and transported). Refer to section 7.2.1 for more details.

- **Disband Group**, which will disband the squadron (if this is selected, the computer will ask if the unit should be reformed; if so it is returned in 90 days as a reinforcement, using available planes in the replacement pool to try to fill the unit up to full strength; if not, the unit is permanently removed from play)
- **No Replacements/Accept Replacements**, which will either not allow or allow, respectively, replacements to be accepted by the squadron (this is useful to select when you want certain squadrons to have a priority in receiving aircraft)
- **Do Not Upgrade/Upgrade – aircraft type**, which will either block or allow any upgrading of the squadron's aircraft. If allowed, the name of the aircraft type that this squadron will upgrade to is displayed (if available; this is not an indication that the new aircraft type will be immediately transferred, but rather that this squadron is wanting to upgrade its aircraft at the earliest possible opportunity). Upgrading aircraft requires a minimum of the squadron's Max Ready number of aircraft of the new aircraft type available in the production pool.
- **Transfer to Ship**, which allows the player to move the squadron to another carrier that is in range and has room for it. A new list will be displayed of possible locations; if no locations appear then there is no ship in range that can take on the squadron.



If this option is selected, a new screen will appear:

Pick Destination Ship for 21 x F4F-3 Wildcat								TRANSFER	
Type	Name	Ops	Range	Groups	Capacity	Aircraft	Location		
CV	Yorktown	0	0	4	90	67	TF 1001		
CV	Lexington	0	0	4	90	69	TF 1001		

From here, all available *ships* that are within range and can take on the squadron will be listed. The ship **Type** is shown, it's **Name**, its **Ops** point value, the **Range** to that ship, the number of **Groups** currently on it, the ship's maximum aircraft **Capacity**, the current number of **Aircraft** located on it currently, and its **Location** (a base or TF name).

- The **Withdraw Group** option is just like **Disband** except the pilots remain with the unit and return with it when it returns to the game; a Withdrawn air unit is *not* permanently removed from the game but rather returned in 60 days.
- The **Upgrade Now** option allows the player to order an immediate upgrade of the aircraft in the unit to a newer model aircraft (see section 15.2.4).

The next several commands allows the player to set orders for one squadron and then have those orders apply to all other similar squadrons in the hex and/or Task Force:

- **Set All aircraft type in this hex** allows the player to select orders for this particular squadron and issue the exact same orders to every squadron of the same aircraft type in the current hex. This saves time if the player wants to issue the same order to every such squadron.
- **Set All plane type in this hex** is similar to All *aircraft type* (above), but any selected orders will apply to *all* of this plane type (fighter, torpedo bomber, etc.) in the hex, not just of the currently selected squadron. For example, a Wildcat and a Corsair are both fighters. If fighter squadrons of each of these types were located in the same hex, selecting this order will set the order for both of them, since they're all fighter type aircraft.
- **Set All aircraft type in this TF** is similar to the 'in this hex' command, but instead selected orders will only apply to squadrons in the same TF. For example, if a TF is located in a base hex and this base hex has aircraft squadrons, only the aircraft for the TF will be affected.
- **Set All plane type in this TF** is similar to the 'in this hex' command, but instead selected orders will apply to all squadrons with the TF.



# WAR IN THE PACIFIC

*The Struggle Against Japan 1941 - 1945™*

The Set All command DOES NOT set the upgrade status items (Upgrade Now and Upgrade/Do not Upgrade), nor does it set the Accept Replacements item.

Finally, the player may change the squadron from **Day Operations** to **Night Operations**, or vice versa. Squadrons that are assigned to Day Operations will suffer penalties undergoing Night Operations, as will Night Operation squadrons operating in the Day.



The rightmost column displays the Group Mission that the aircraft will be assigned to. By selecting an arrow next to the Mission type, the player is setting up that Squadron to conduct that particular Mission in the target hex. The target hex is also selected here.

Primary Missions include:

- **Escort** – In this Mission, the aircraft will attempt to escort bombers flying airstrikes from the same airfield (and in some cases from other airfields; fighters from one base may escort bombers from another base if the fighters are closer to the target than the bombers). Units given a Mission of Escort will not initiate an airstrike by themselves, but will instead join up with an offensive strike being performed. If the strike the escorting planes are covering has a low detection level, there is a chance the escort aircraft will bounce the enemy CAP (receiving substantial bonuses to combat). However, it is much more likely

that CAP will bounce than Escort, all things being equal.

- **Sweep** – In this Mission the aircraft attempt to draw enemy CAP over the target hex into an air to air engagement. The planes will also attempt to strafe the target if CAP does not drive them off. Squadrons are limited to one Fighter Sweep per day; if weather keeps the fighters from flying a Sweep Mission in the morning, they will be eligible to fly one in the afternoon.
- **Airfield Attack** – In this Mission the aircraft will arm with bombs and attempt to bomb an enemy airfield and other targets at the airbase.
- **Port Attack** – In this Mission the aircraft will arm with bombs and attempt to bomb an enemy port's facilities and other targets at the port including ships at anchor. If there are a large number of ships in port, some torpedo bombers may arm with torpedoes to attack them.
- **Naval Attack** – In this Mission the aircraft will attempt to use bombs or torpedoes against an enemy Task Force. (in the above example screenshot, the TBD Devastator torpedo bomber squadron has Naval Attack highlighted in green, meaning this is the Mission that

is currently selected. Torpedo bombers do not do as well with other Mission types as the one they are built to accomplish.

- **Ground Attack** – In this Mission the aircraft will attempt to bomb an enemy ground unit.
- **Recon** – The unit will send one plane to perform photoreconnaissance of an enemy base, ground unit or TF. (Large recon air groups may fly 2 planes per Recon Mission flown.) This can increase the detection level of the target. Recon Missions are especially difficult to intercept with CAP or shoot down with Flak. Recon type planes are the best at performing Recon Missions. Bombing Missions will automatically recon their target (take pictures as they bomb), but this is less effective than flying a specific Recon Mission. (Refer to **9.1.3 Recon Flights**)
- **Naval Search** – The aircraft will search for enemy Task Forces (subs or surface) in all directions out to their extended range. They will carry an extended range bomb load in case they spot a sub or surface ship, in which case they will attempt to attack unless driven off by CAP or Flak. The chance of sighting the enemy is increased with the number of planes searching. When a unit has a Nav Search Level set greater than zero, then the set percentage of the unit will automatically fly this Mission, with the remainder of the planes either flying the Mission set for the unit or resting (if the Mission is Naval Search). Thus, if you wish to have a unit fly all of its planes on Naval Search you must set the Nav Search Level to 100 (irrespective of the Mission selected for the unit).

Planes executing a Naval Search will only search out to the Maximum Range that has been set for them. The shorter the range set, the greater the chance they will spot a TF within their range setting.

- **ASW Patrol** – An ASW (anti-submarine warfare) Mission is the same as a naval search Mission except that the range flown is cut in half and the chance of attacking a submarine once sighted is increased. The chance of sighting the enemy is increased with the number of planes searching. Units given an ASW Patrol Mission will have their Nav Search Level turned into their ASW Patrol Level. When a unit has an ASW Patrol Level set greater than zero, then the set percentage of the unit will automatically fly this Mission, with the remainder of the planes resting. Thus, if you wish to have a unit fly all of its planes on ASW Patrol you must set the Mission to ASW Patrol and the ASW Patrol Level to 100.

Planes executing an ASW Patrol will only search out to the Maximum Range that has been set for them. The shorter the range set, the greater the chance they will spot a submarine within their range setting.

- **City Attack**. This option the player gets a pop up with a list of all cities within range. When the city is selected, the specific industry items are listed on the right. One of each must be picked. If the player selects commanders discretion for the target city, they still must select a general type of industry to bomb.

When a city is attacked, there is a chance that a fire can be started. A fire level shows up when the mouse cursor is rolled over a base, just above the list of enemy industry. City attacks on Manpower have a chance of creating high fire levels that will cause damage to any and all industry. The fire level can get as high as 40 million, and is divided by 10 each 12 hours as the fire is put out. Very high levels will continue to cause damage. The greater the target manpower, the easier it is to get a fire storm going.

Also, air dropped mines are an option here if a city with a port is targeted. Air dropped mine Missions may not be flown before 1943.

If the Production System (section 11.0) is turned off, no industry, resources, or oil may be attacked.

- **Supply Transport** – The unit will fly supplies to their DH, which does not necessarily have to have an airfield (thus allowing the ability to airdrop supplies to ground units in the field). The unit must have a friendly unit set as the destination in order for the Mission to be flown. Transport Missions may be flown to destinations that are within 1.2 of the aircraft's maximum range. The amount of supplies carried is dependent on the capacity of the transports.
- **Troop Transport** – The unit will fly troops to their destination base (must have an airfield of at least size 1 unless the unit being transported is a parachute unit). The option **Pick Up Troops** will be available if a destination is set for the air group. This will allow you to order the air group to fly to a base, pick up a ground unit at that base, and return it to the air unit's current location. For either a transport or a pick up of troops to occur, a ground unit to be transported must be selected or no Mission will take place. Transport Missions may be flown to destinations that are within half (50%) the aircraft's maximum range. The amount of troops carried is dependent on the capacity of the transports. Only items in a ground unit with a load cost of less than 7 may be transported by air (examples are the 37mm AT gun or 120mm mortar as the biggest items a plane will carry). Units that cannot be transported in a single sortie will be split into two units, with one remaining behind while the other appears at its destination.
- **Training** – Aircraft from the unit will fly training Missions in order to improve pilot experience. The number of aircraft that will fly is based on the Training Level percentage (i.e. if the Training Level is 30 then 30% of the planes in the unit will fly training). Planes flying training Missions take Operational Losses and may stumble into combat with enemy planes flying over their hex. Units given a Training Mission will have their CAP or Nav Search Level turned into their Training Level.

However, Combat Missions are the best way to gain experience, while Supply, Transport, and Training Missions yield less experience.

Training is also a way to rest your squadrons; if you want your pilots to recuperate, set their Training Level to zero. Click the **Stand Down** button (detailed below) on the Secondary Mission list to stop training.

- **CAP** – Although this is not a Mission that is assigned to a unit, some types of aircraft will fly Combat Air Patrol to protect all friendly units in the fighter unit's hex from enemy air attack. The CAP Level number to the right of the screen determines a percentage of the squadron's aircraft that will fly CAP instead of the unit's Mission (unless a training Mission is ordered).

**When the CAP Level or Training for units that can fly CAP is set to 100, the Mission automatically becomes Long Range CAP. Thus, when a unit is flying Long-Range CAP, it always tries to use all of its aircraft in the Mission.**

- **Long Range CAP** – The air unit's aircraft will fly combat air patrol over all friendly units in a hex other than the one containing the air unit's base. Long Range CAP will attempt to intercept any enemy planes flying into the hex containing the Long Range CAP. The amount of fighters protecting the friendly units at the moment of an enemy airstrike is based on the range to the hex being protected and the normal radius of the aircraft flying Long Range CAP. Long Range CAP over Air Combat TF's is only 20% as effective as over other units since it's harder to coordinate with an Air Combat TF that is constantly changing course and is using radio silence. When Long Range CAP is set as the Mission, the unit's CAP level is set to 100.
- **Rest** – Aircraft with rest set as a Mission will fly only naval attack Missions, resting at their base if there are no TF's worthy of attack (by definition their primary Mission type must be naval attack).

Air units that have Naval Attack set as the Primary Mission, may select a Secondary Mission in case there are no TFs to attack as follows:

- **Airfield Attack** (which happens to be our example's selection)
- **Port Attack**
- **Recon**
- **Rest** – If no Naval Attack is conducted, the unit will do nothing.
- The **Stand Down** command is the easiest way to tell the squadron to stop flying. Selecting this puts the unit into Training mode and sets its Training level to 0%, which will stop all flights. This will help eliminate fatigue and allow the squadron to rebuild its strength, if necessary.
- The **Target** is initially set to **Commander's Discretion**, meaning the choice of target is left to the air group to decide what hex it will bomb. If an air group is set to **Airfield Attack** but has no **Target** set, the air group will decide for itself which, if any, enemy airfield to attack.. Clicking this arrow brings up the Tactical Map where the player can select the hex that the squadron will attack; the player then selects a hex to target, or right clicks to exit without setting a target.
- The **Nav Search Level** option dictates the percentage of the aircraft that will fly Naval Search while the rest of the unit attempts to carry out its selected Mission(s).
- The **Current Altitude** displays the altitude that the aircraft will fly at when flying to and from the target hex. The arrows next to the title correspond with fine-tuning this altitude; the arrows closest to the title move the numbers slowly while the arrows farthest from will move the numbers to their maximums and minimums. The arrows in between will move the numbers in large increments.
- The **Maximum Range** sets the maximum range in hexes that the squadron will travel in order to reach the target. The air unit will **not** exceed this distance when picking a target using **Commander's Discretion** whether the target is for a strike Mission, escort, or Long-range CAP. However, if the air unit is assigned a specific target (base or TF), *then the air unit will ignore this max range setting.* Planes executing a Naval Search or ASW Patrol Mission will only search out to the Maximum Range that has been set for them.

The shorter the range set, the greater the chance they will spot a TF within their range setting.

Finally, at the bottom of the screen are several extra options and information.

- **Location is...** tells the player right off where the squadron is located (TF, airbase, etc.)
- **Set TF to group location** will center the player's Tactical Map on that group's location.
- **Show float planes** will display the float planes attached to the TF
- **Next Group** will move to the next squadron in the TF
- **Back** will move the player back to the TF screen
- **Exit** will exit the display and bring up the Tactical Map
- **Divide Unit**, if available, will allow the player to divide the unit into three smaller units. The first unit will have a designation /A displayed next to its name, the second /B, and the third /C. If all three units are located in the same hex, the Divide Unit option will instead display as **Rebuild Unit**. Clicking Rebuild Unit will then recombine the parts into one whole unit. It is important that the recombining units have the exact same kind of equipment; otherwise the recombination will not work.

## 7.1.1 Atomic Bomb Attacks

Atomic Bombs (or A-Bombs) are only utilized by the Allied player, and may only be used by the 393rd NBS unit (which is unit number 1618 in the database editor). The Atomic Attack option will be displayed for this unit but only in 1945 or 1946 and only if an A-Bomb is available. A city and industrial target must be selected, with the industrial target serving as ground zero. All industry in the city may suffer damage.

The number of atomic bombs available to the Allied player are displayed in their Intel screen listing.

Note that the usage of atomic bombs by the Allies will result in negative effects to their victory level determination (**16.0**).

## 7.1.2 Aircraft Restrictions

Aircraft assigned to a restricted HQ may **not** be loaded on ships or transferred to a base that does not report to its restricted HQ. These HQ's are:

### Japan

- Home Defense Force
- Kwangtung Area Army
- China Expeditionary Army

### Allies

- Australia Command
- West Coast
- USAFFE
- ABDA
- Canada Command
- New Zealand Command

## 7.1.3 Operational Losses to Aircraft

Operational Losses (or Op Losses) occur due to accidents or other untoward events that are not a direct result of being shot at by the enemy. These losses occur to squadrons based on their several factors, including the range of the Mission, the experience of the pilot, and if the aircraft is flying from a carrier. Any long range Carrier-based aircraft strikes (of two or more hexes in distance) will cause an extra chance of operational losses to be incurred. However, if a player's base has sufficient supplies they may note that any damaged aircraft will likely be repaired before the next Orders Phase.

Op losses include planes lost returning to base and planes crashing, planes destroyed or damaged on take off and landing, and pilots as a result getting killed, wounded, or captured.

CAP and Search Missions will suffer the lowest Op losses; however, 1 out of every 5 planes assigned to CAP and Search Missions will return to their base damaged. The player may not notice this as if the base has sufficient supplies and aviation support at the base, these damaged planes may very likely be repaired by the next Orders Phase.

## 7.2 AIRCRAFT

Air units (also called air groups) generally depict squadrons or similar formations of the same type of aircraft. They represent Squadrons and Groups for the Allied player and Chutais, Daitais, Sentais, and Hikotais for the Japanese player. These range from 9 to 72 planes, although some ship based floatplane groups can be smaller.

Each unit is made up of a number of planes of **one** particular aircraft model, with the maximum number of planes that can be ready at one time dependent on many factors such as nationality, type of plane, Japanese formation type, and ship capacity for planes based on ships.

Aircraft come in five varieties:

1. Fighter
2. Attack
3. Level Bomber
4. Transport
5. Reconnaissance

Aircraft are not represented on the map as such, but rather are always located on airfields. During the Air Movement/Combat phases, a line depicting the path of the aircraft will be shown that ends at the target hex. Any actions taken by the air units, as well as losses, will show up in the Combat Events screen. Furthermore, individual pilots are rated for **Experience** and **Fatigue**.

Air units rely on the support of Aviation Support squads, which are found in both Base Forces and Special Aviation Units (like Aviation Regiments). These units contain support troops to service aircraft and engineers to construct and maintain the base facilities. Without these base force units present, the base can't maintain aircraft and keep the base functioning in combat. Aviation Support troops are not attached to any particular squadron - their presence at a base is enough to support the air units present. All engineer squads and vehicles can construct and repair base facilities.

## 7.2.1 Air Sequence of Play

Air Operations happen twice a day - there are Night and Day air operations sequences with the Day sequence broken into morning, afternoon and air transport phases. The night sequence is briefer because less aerial activity occurred at night. Only air units that have been given "Night Operations" status will conduct operations during the night (the Japanese were especially fond of night bombing Missions). What is common to both Day and Night are the launching of Combat Air Patrols (CAP), the launching of strikes, resolution of strikes, and return of aircraft. This is when aircraft move and when aerial combat and surface attacks occur. Other operations are confined to Day, such as transporting of troops and supplies, naval searches, and reconnaissance.

Air units are located at a specific base or ship, and remain there unless transferred, disbanded, or withdrawn. You may transfer air units between two friendly bases during your Orders Phase. This kind of transfer occurs immediately, although only ready aircraft will move. The remaining aircraft will either be transferred to another unit with similar aircraft at the current base, or will form a new air unit that is a sub-unit of its parent formation (i.e. 19th BS unit would form 1/19th BS unit).

You can also transfer air units to *overland* to bases that are too far to fly to. These bases will be listed with a **-r** next to their names in the list of bases when you select the **Transfer to Base** option. Units transferred overland arrive at their new base damaged (they were crated for transfer). There is a limit in that only bases that can be reached by tracing a path of hexes with a movement value of no greater than 100 where the following terrain costs apply per hex:

- 2 Rail/Highway
- 5 Road
- 25 Trail
- 50 Cross Country

For example, an air unit could transfer to a base 50 rail hexes away ( $50 \times 2 = 100$ ).

A unit may only execute one transfer per Orders Phase, and units that have transferred are free to perform all normal operations from their new base in the immediately succeeding resolution phase. All other air operations take place during the Air Ops segment of Day and Night Resolution phases. The computer, based on the orders given to the air units by you during the Orders Phase, determines these operations.

## 7.2.2 Assigning Aircraft Missions

During your Orders Phase, you may set the six components of an air unit's orders:



1. Primary Mission.
2. Secondary Mission (this can only be set if the Primary Mission is Naval Attack).
3. Either Target (Target), which can represent the Target for a Primary Mission, a Secondary Mission, or Long-Range CAP Mission, or Destination (Dst) if an Air Transport Mission.
4. Either CAP Level, Naval Search Level, ASW Patrol Level or Training Level.
5. Altitude.
6. Flying Day or Night Operations.

All air units begin scenarios with default values set for each of these 6 items, although air units are not automatically given a Target. Only bases and ground units may be set as a Target, except for aircraft flying Long Range CAP in which case they can set a friendly TF as the Target. (This means that enemy Task Forces can never be set as targets of air units - the computer must designate them as such during the resolution phase) Air units without a specific Target determine for themselves which targets they will attack based on the computer's best judgement

(called Commander Discretion on the Unit Information Screen). It is the interaction of these 6 items with the air unit's current knowledge of enemy forces that will determine the air unit's operations during the resolution phase.

**Air units will continue executing their assigned Mission until they are told otherwise.**

Each air unit is limited to flying either Day or Night operations on any given day based on the unit's current orders. Air groups aren't affected by Set All commands if they do not have the same Day/Night setting as the air group whose orders are being duplicated (i.e. a group set for Night Missions will not change its orders if a group set for Day orders uses one of the Set All air group commands). There are fifteen different Missions that air units may be assigned (this includes CAP which is not set as a Mission but is determined by the CAP Level for fighter, fighter bomber, float-fighter, and night-fighter aircraft).



## 7.2.2.1 Plane Type Limitations on Mission Selection

Each plane type is limited to a specific sub-set of Missions as listed below:

<b>Offensive Missions (bombing, strafing or point reconnaissance)</b>	Airfield Attack, Port Attack, Naval Attack, Ground Attack, (Fighter) Sweep, Recon
<b>Escort Missions</b>	Escort
<b>CAP Missions</b>	Long Range CAP, CAP (not listed as a Mission, just a level setting)
<b>Patrol Missions</b>	Naval Search, ASW Patrol
<b>Transport Missions</b>	Supply Transport, Troop Transport
<b>Training Missions</b>	Training
<b>Rest</b>	Rest (Indicates no desired Role)

## 7.2.2.2 Mission Types by Aircraft

<b>Float Fighters</b>	Sweep; Escort; Long Range CAP, CAP; Training
<b>Fighters, Fighter Bombers, and Night Fighters</b>	Sweep, Airfield Attack, Port, Attack, Naval Attack, Ground Attack; Escort; Long Range CAP, CAP; Training; Rest
<b>Dive Bombers, Torpedo Bombers, and Float Planes</b>	Airfield Attack, Port Attack, Naval Attack, Ground Attack, Recon; Naval Search, ASW Patrol; Training; Rest
<b>Level Bombers</b>	Airfield Attack, Port Attack, Naval Attack, Ground Attack, Recon; Naval Search, ASW Patrol; Supply Transport; Training; Rest
<b>Patrol</b>	Recon; Naval Search, ASW Patrol; Supply Transport, Troop Transport; Training
<b>Transport</b>	Supply Transport, Troop Transport; Training
<b>Recon</b>	Recon; Naval Search; Training

## 7.2.2.3 Day Air Operations

### **Sequence**

- 1) Morning Air Phase
  - a) Launch CAP and Search Missions
  - b) Conduct Air Search
  - c) Launch Air Strikes
  - d) Resolve Air Strikes
  - e) Land Aircraft
- 2) Afternoon Air Phase
  - a) Launch CAP and Search Missions
  - b) Conduct Air Search
  - c) Launch Air Strikes
  - d) Resolve Air Strikes
  - e) Land Aircraft
- 3) Air Transport and Auto Sub-group Movement Phase
  - a) Launch CAP
  - b) Execute Air Transport of Troops
  - c) Execute Air Transport of Supplies
  - d) Automatically move Air sub-groups toward their parent formations
  - e) Land all Aircraft

### **Flow of Air Operations**

Air operations are automatic during the resolution phase but are greatly affected by the orders you have given to your air units. Each Day Air Ops phase consists of Morning and Afternoon sub-phases followed by a Transport sub-phase. Units flying Patrol, CAP and Training Missions will fly during both the Morning and Afternoon. Planes flying Offensive Missions can fly during both the Morning and Afternoon phases (under some conditions a unit can fly two Offensive Missions per Day by flying during both phases). Generally, during each Day morning, air phase aircraft will attempt to execute their primary Mission against their Target if possible. If no appropriate Target has been given, the aircraft will decide for themselves whether to fly a Mission at a target of their choice that matches their primary Mission type.

In the afternoon, units will fly naval attack if there are no enemy Task Forces to attack. The only time a unit can fly two offensive strikes during the same Day is if they fly an attack in the morning and sufficient time remains for them to engage in a Secondary Mission or launch another naval attack in the afternoon.

The computer does account for the flight time to targets in both the morning and afternoon attacks, so it is much more likely that an air unit will fly two attacks in the same day if the targets they are bombing are at closer ranges. Non-naval attack Primary Missions will never be flown in the afternoon as they are only flown in the morning. However, planes that have flown a primary Mission in the morning may join in a naval attack Mission in the afternoon. After the Morning and Afternoon phases there is a Transport phase that resolves Transport Missions including parachute operations. CAP and Long Range CAP will also fly during the Transport Phase.

## ***Flow of Morning Air Ops***

For a unit to initiate an airstrike in the morning, the following must all be true:

1. The unit has at least 2 ready aircraft.
2. Its Primary is Naval Attack and there is an enemy TF that has been spotted. Or, its Primary Mission is an Offensive Mission but not Naval Attack and it either has a valid Target or a Target it decides is worthy of being attacked (see auto target selection section below).
3. If the target is not the Target set for the air unit, then the expected enemy CAP must not be too great for the expected escorts to handle (roughly 1 escort is needed for every 2 CAP, but the ratio is greater for escorts for longer range Missions). If bombing the Target, escort is not required. The computer assumes that half of the enemy fighters present in a hex are flying CAP Missions for strike target selection purposes.
4. The target must be within the unit's extended range.

Once an airstrike is initiated, other units at the same base/ship will join in if all of the following is true:

1. The unit has at least 2 ready aircraft.
2. Its Primary Mission is Naval Attack and the target is a TF. Or, its Primary Mission is an Offensive Mission but not Naval Attack and its Target matches the target being bombed. Or, its Primary Mission is an Offensive Mission but not Naval Attack and it has no specific Target set.
3. If the unit has a Primary Mission of airfield attack, the target has an airfield.
4. The initiating unit is not flying a Recon Mission.
5. If a naval attack, the number of aircraft already planning to fly the Mission is not considered overkill against the target (i.e. a very small Task Force will not draw unnecessary bombers)
6. The target must be within the unit's extended range.

Units will join the airstrike to fly escort if the following is true:

1. The unit has at least 2 ready aircraft.
2. The unit's Primary Mission is Escort.
3. If the unit has a Target set, it is not different from the target.
4. The number of aircraft already planning to fly escort does not exceed the expected CAP by approximately 2 to 1.
5. The unit is at the same base/ship as the initiating unit. Or, it is at another base/ship but with a Target set that matches the target being bombed. Or, it is at another base/ship and it has no Target set and it happens to decide that the target location should be the focus of the unit.
6. The target must be within the unit's extended range.

Multiple airstrikes aimed at different targets may be launched from the same base/ship. Once all airstrikes have been planned, then they are launched and resolved, after which all planes flying for any reason return to their bases.

## ***Flow of Afternoon Air Ops***

The Afternoon Air Phase is essentially similar to the Morning Air Phase, but there are several key differences, especially in what Offensive Missions are flown, and against which targets. At the beginning of the afternoon air phase all aircraft flying Patrol type Missions, Training Missions and CAP are again launched. Air Searches are then resolved. Next, the computer begins to determine which Offensive Missions will be flown by checking each air unit to determine if it is going to initiate an airstrike. Once a unit has been found that will initiate an attack, other units at the same

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base/ship decide whether to join that strike. This process continues until all units have been checked.

For a unit to initiate an airstrike in the afternoon, the following must all be true:

1. The unit has at least 2 ready aircraft.
2. Its Primary Mission is any Offensive Mission and there is a valid enemy TF to target; or if no TF target is available and its Secondary Mission is any Offensive Mission and it either has a valid Target or it has a target it decides is worthy of being attacked.
3. If the target is not the Target set for the air unit, then the expected enemy CAP must not be too great for the expected escorts to handle (roughly 1 escort is needed for every 2 CAP, but the ratio is greater for escorts for longer range Missions). If bombing the Target, escort is not required.
4. The target must be within extended range, unless the target is a TF and the attacker does not have Naval Attack as the Primary Mission in which case it must be within normal range.
5. If the unit has flown a Mission in the morning phase, it must still have sufficient time to be able to reach its afternoon target (i.e. two Missions in a Day are restricted to shorter Missions).

Once an airstrike is initiated, other units at the same base/ship will join in if all of the following is true:

1. The unit has at least 2 ready aircraft.
2. Its Primary Mission is any Offensive Mission and the target is a TF or if the unit has an Offensive Secondary Mission and its Target matches the target being bombed or the unit has an Offensive Secondary Mission and no Target set.
3. If the target is not a TF and the unit has a Secondary Mission of airfield attack, the target has an airfield.
4. The initiating unit is not flying a Recon Mission.
5. If a naval attack, the number of aircraft already planning to fly the Mission is not considered overkill against the target (i.e. a very small Task Force will not draw unnecessary bombers)
6. The target must be within extended range, unless the target is a TF and the attacker does not have Naval Attack as the Primary Mission in which case it must be within normal range.
7. If the unit has flown a Mission in the morning phase, it must still have sufficient time to be able to reach its afternoon target (i.e. two Missions in a day are restricted to shorter Missions).

Units will join the airstrike to fly escort if the following is true:

1. The unit has at least 2 ready aircraft.
2. The unit's Primary Mission is Escort.
3. The number of aircraft already planning to fly escort does not exceed the expected CAP by approximately 2 to 1.
4. The unit is at the same base/ship as the initiating unit or it is at another base/ship but with a Target set that matches the target being bombed or it is at another base/ship and it has no Target set and it happens to decide that the target location should be the focus of the unit.
5. If the unit has flown a Mission in the morning phase, it must still have sufficient time to be able to reach its afternoon target (i.e. two Missions in a Day are restricted to shorter Missions).

Multiple airstrikes aimed at different targets may be launched from the same base/ship. Once all airstrikes have been planned, all airstrikes are launched, and then all planes flying for any reason return to their bases.

## **Flow of Transport and Sub-group Operations**

During this phase aircraft flying CAP will take off and then transports will fly to their destinations with their cargo. The only way to escort transports is to have long range CAP flying over the destination of the transports. In this way you can escort transports that are carrying paratroops to drop on an enemy base.

After transports fly their Missions, auto sub-group movement occurs. Finally, all units that have flown during the phase now land.

### **7.2.2.4 Night Air Operations**

#### **Sequence**

1. Launch CAP
2. Launch Air Strikes
3. Resolve Air Strikes
4. Land Aircraft

Air operations at Night are limited to CAP and certain Offensive Missions. Escort is not flown at Night, and unlike during the Day, there is only one Air Phase. Each Air Group may be ordered to fly its Missions at Night instead of during the Day (the default). Air units flying at Night may fly the following Missions:

<b>Float Fighters</b>	Sweep, Long Range CAP, CAP, None
<b>Fighters, Fighter Bombers, and Night Fighters</b>	Sweep, Airfield Attack, Port Attack, Naval Attack, Ground Attack, Long Range CAP, CAP, None
<b>Level Bombers, Dive Bombers, Torpedo Bombers, Patrol, and Float Planes</b>	Airfield Attack, Port Attack, Naval Attack, Ground Attack, Long Range, None

Air units are not given Secondary Missions if flying at Night. In order to launch an Offensive Mission at Night, an air unit must have at least 6 ready aircraft and morale of at least 50. Target selection at Night is similar to the way it is done during the Day. It is much harder for CAP to intercept enemy airstrikes at Night. Night fighters are better than other plane types at intercepting enemy airstrikes at Night.

### **7.2.2.5 Morale and Air Missions**

Every air group with a Morale under 50 that is about to fly an Offensive or Escort Mission must pass a Morale Test in order to fly. The lower the Morale, the greater the chance the group will fail the test and **not** fly that particular Air Phase. Also, air units flying a Naval Search, ASW Patrol, or

CAP Mission must pass two Morale Tests in order to fly all available planes on the Mission. For each Test failed, the number of planes flying will be reduced by 25%.

Before Level Bombers fly an Offensive Mission, they must pass 3 tests in order to fly all of their ready aircraft:

1. An experience test
2. A leadership test
3. A morale test in order to fly all of their planes

For each test failed, the number of bombers that fly the Mission will be reduced by 25%.

## 7.2.2.6 Air HQs

Air HQ's will help air operations within their Operational Radius. Level bombers not located within an air HQ's Command Radius will have their number of planes flying reduced by 25% for Offensive Missions. All other air strike Missions by units outside an air HQ's command radius will have the flying planes reduced by 10%. The command radius for most air HQ's is five hexes. However, Japanese Air Division HQs have a Command Radius of three hexes, while Japanese Air Brigade HQs have a command radius of one hex.

The Command Radius of an HQ is displayed on its Ground Unit Information screen in the top left corner.

## 7.2.2.7 Aircraft Range

Each distinct naval and ground aircraft model is rated for its Maximum Range. This is the number of hexes that the plane may move when transferring between bases. The maximum range is also used to calculate the Transport Radius of the aircraft (1/2 of max range), the Extended Combat Radius of the aircraft (1/3 of max range) and the Normal Combat Radius of the aircraft (1/4 of max range). Range circles show the normal (black circle) and extended ranges (red circle) for the currently active air group.

## 7.2.2.8 Air Unit Targets and Destinations

Targets and Destinations are Mission objectives, with Targets used in Offensive Missions and Destinations in transport Missions. If a Destination has been set for a unit with a Transport Mission, then that Destination will become the destination for the Transport Mission to be flown. Without a Destination, transports will not fly a Mission.

The setting of a Target is a critical factor in determining where non-Naval Attack Offensive Missions are flown and which attacks escorting fighters choose to accompany. Air units without a target will determine their own target for these Missions (the computer chooses for you). Although air units on the same base or carrier may have a mixture of Missions and targets, this may lead to an unwanted dissipation of effort. If you wish to concentrate your airpower on a given target you are advised to select this critical target as the Target for each air unit you want involved.

- Only hexes containing bases or ground units may be set as the Target, except that friendly Task Forces may be set as a Target by fighters flying a long range CAP Mission

- Air units given Naval Attack orders will always be under computer control for the selection of targets. Thus Targets are listed either as a hex number (with base/beach name if there is a base/beach in the hex) or a TF number.
- Targets can be set for units with Naval Attack Missions, though they won't be enemy TF's. If a Target has been set for an air unit with Naval Attack as the Primary Mission type, the Target will be used for any Role assigned, thus becoming the priority for the unit if no Naval Attack Mission is flown.
- Targets have no impact on planes flying Patrol or Training Missions.

Bombers attacking ports will attack any ships at anchor (however, TF's docked in port will **not** be attacked) 50% of the time. These attacks use bombs with only a small percentage of torpedo bombers using torpedoes (as it is assumed these ships may be in dry dock or protected by torpedo nets). If there are less than 10 ships at port, however, the chance of bombers attacking ships lessens with each number less than 10 (so, bombers would be more likely to attack ships if 9 were in port as opposed to 4).

When planes bomb an airfield they can hit aircraft on the ground, support troops at the base (Headquarters, Anti Air, Artillery, Engineers, etc.), supplies at the base, the airfield runway, and the airfield service facility. They can also reduce the Morale of air units stationed at the base. Planes that bomb a port can hit the port facilities, support troops at the base (HQ, AA, ART, ENG, CD type ground units), ships at anchor in port, supplies at the base and fuel at the base. (Since seaplanes do not use runways, they do not take on losses due to damaged runways.)

When flying Missions at extended range (that is further than the normal combat radius but less than the extended combat radius), there is:

- An increased chance of not finding the target.
- Disruption caused by air to air combat is increased for aircraft flying at extended range. Bombers carry fewer and/or smaller bombs at extended range, and they cannot carry torpedoes at extended range (they substitute a reduced payload of bombs).
- Level bombers flying out of a small airfield cannot fly at extended range, and will be treated as if they are flying at extended range when bombing targets at normal range. Planes flying a Naval or ASW Search Mission will carry an extended range bomb load.

In order to avoid these penalties, the size of the airbase needs to be equal to:

**4 + (Max load of aircraft / 6500)**

All fractions are rounded down.

Thus, an A-20B requires a minimum size 4 base, a B17-E requires a minimum size 5 base, and a B29 requires a minimum size 7 base.

### 7.2.2.9 CAP, Nav Search, ASW Patrol and Training Levels

Typically all ready aircraft in a unit will fly together when a unit is performing a Mission. However, you may use the CAP, Nav Search, ASW Patrol, and Training Levels as a way to split off a percentage of the unit's aircraft to perform **CAP, Naval Search, ASW Patrol, or Training** Missions. Air units other than Transports have either a CAP or Nav Search Level when not designated to fly Training or ASW Patrol Missions. These levels can be set between 0 and 100 percent in increments of 10. CAP and Nav Search Levels dictate the percentage of the aircraft

that will either fly CAP or Naval Search while the rest of the unit attempts to carry out its selected Mission(s).

When Long Range CAP is the selected Mission, the CAP level is always 100, meaning that all of the planes in the unit will be used to cover the hex being defended. Long Range CAP over TFs are less effective than normal CAPs. When Naval Search, ASW Patrol or Training is selected as the Mission, the corresponding Nav Search, ASW Patrol or Training Level dictates the percentage of the unit that will fly this Mission while the remainder of the unit rests.

## 7.2.2.10 Impact of Altitude Selection

You can set the altitude at which Missions will be flown. Higher altitudes soften the effects of flak, but reduce bombing accuracy.

Altitude also affects airstrikes as follows:

- Planes on a Search Mission will have a greater chance to bomb the target when flying at lower altitudes, but will suffer from more flak.
- Dive bombers and fighter bombers always automatically dive down to 2,000 feet to release their bombs, which means that they will first suffer flak at their assigned altitude and then take flak at their lower diving altitude (note that fighters bombers dive bomb, but not as well as dive bombers).
- Torpedo bombers must drop down to 200 feet to engage their targets, so they also suffer flak at their assigned altitude and then eat flak again at 200 feet.
- Fighters flying escort will automatically fly a few thousand feet above the bombers they are escorting.
- Planes that are assigned an attack Mission at an altitude of 100 feet will bomb and strafe their target.
- Planes on a Sweep Mission will always drop to 100 feet and strafe (taking flak at their set altitude and again at 100 feet).
- Planes flying Recon Missions are more likely to detect the enemy at lower altitudes.
- Planes flying a Naval Attack Mission with an altitude of 100 feet will skip bomb and strafe their target. Skip bombing is a very accurate way to bomb a ship if the experience of the pilots is over 60, but the accuracy falls when their experience is below 60 and very dramatically below 50. Of course, flak from ships will be very intense at 100 feet.
- Planes that strafe a base will attack aircraft on the ground, support troops at the base (HQ, AA, ART, ENG, and CD type ground units), ships at anchor in port, and they can also reduce the morale of aircraft stationed at the base. Strafing occurs during a Sweep Mission, or during an airfield or port attack where the altitude of the attacking planes is set to 100 feet. Strafing may also occur during an attack on ships if the altitude is set to 100 feet, in which case they also attempt to skip bomb the target. Strafing may also occur when attacking a ground unit and the altitude is set to 100 feet.
- Aircraft that are not Fighter-bombers or Kamikazes must be given an altitude of 100 feet in order to be eligible to attack a TF of all barges or PT boats. Fighter-bombers or Kamikazes will automatically dive down to 100 feet when attacking one of these TFs.
- When a group flying CAP attacks bombers, they reset their altitude to that of the bombers.
- When fighters attack other fighters, the fighters deemed to have initiative will change their altitude to that of the fighters they are attacking.



- If a group flying escort is flying over 3,000 feet above the nearest bomber group it will drop down to 3,000 feet above the highest bomber group. If escorts are below the lowest bomber group, they will rise up to the altitude of the lowest bomber group.
- Other than impacting P-39 and P-400 performance, altitude does not impact air to air combat with one exception: aircraft that are reinforcing CAP due to a radar contact of the incoming strike may not be able to climb fast enough to engage the incoming bombers.
- Level bombers attacking at below 5,000 feet will have their accuracy and effectiveness reduced.
- No level bomber will hit a ship with more than one of its bombs on any particular Mission (they assumed to spread out over such a distance that at best one hit will occur from any particular bomber).
- Level bomber groups that have more damaged aircraft than ready aircraft near the end of the Resolution Phase and are ordered to attack at an altitude of below 6,000 feet will have the possibility of having a 30 point Morale loss.
- Inexperienced bomber groups will jettison their bombs early
- Planes attacking at 100 feet will climb to 1000 after the attack
- Bombers flying too high for CAP will not be attacked.

## 7.2.2.11 Coordinating Strikes

Each base or ship containing an air unit is considered a unique entity for purposes of determining offensive Missions and Escorts. Under certain circumstances planes flying different Missions and planes flying from different starting points will coordinate their attacks.

During the Resolution Phase the computer forms up airstrikes from each base/ship depending on the orders the air units have been given and the information those units have about the enemy's forces. Planes that are performing offensive Missions and their accompanying Escorts, all flying from the same base/ship to the same target hex, will fly together even if they have different Missions.

**For example, you could have 3 bomber units flying together from the same airfield, with 1 each to bomb an airfield, a port and a ground unit within the same target hex. These bombers could be accompanied by 2 fighter groups flying escort and another fighter group flying a Sweep Mission. A plane flying a Recon Mission could also accompany them.**

Airstrikes from different bases/ships flying to the same target hex will approach the Target together if the range to the target hex is the same. This allows aircraft carriers to coordinate their attacks. However, before the attacks are made, there is a chance that some of the units will become separated from each other and this may result in piecemeal attacks on the target. In addition, a unit may escort attacks originating at another base/ship if the escorting unit has a Target that matches the target being attacked, and the escorting fighter is closer to the target than the aircraft being escorted. Occasionally this can occur even if no priority target is set for the escorting unit.

The coordination of airstrikes is affected by how many Carrier aircraft are based in the TF launching a strike. The chance of uncoordination is doubled under the following circumstances:

- Allied TF in 1942 and the number of aircraft in the TF is greater than 100 + rnd (100).
- Allied TF in 1943 and the number of aircraft in the TF is greater than 150 + rnd (150).
- Allied TF in 1944 or later or a Japanese TF at any time and the number of aircraft in the TF is greater than 200 + rnd (200).

Also, in 1942 Allied coordination is generally not as good as the Japanese's.

## 7.2.2.12 Automatic Target Selection for Air Units Lacking a Set Target

When determining whether to initiate an airstrike, a unit with an offensive Mission but no Target set must decide for itself which if any Target it wishes to strike. Units will always initiate a strike against a valid TF if there is one spotted, and are more likely to attack a TF that is within 180 miles (3 hexes).

Units will not always initiate a strike against a base or ground unit if they deem them to be unworthy of attack. The specific naval Target picked if there is more than one valid Target is determined by the unit based on the importance of the ships in the TF spotted. Carriers are by far the most important Targets, followed by Battleships, Cruisers, Transports, and other ships in that order. For air units looking for an appropriate base or ground unit to attack, the following factors are considered:

- The greater the assault strength in a base/unit, the more likely the base/unit will be picked as a Target.
- The greater the current size of the port, the more likely the base will be picked as a Target.
- The greater the current size of the airfield, the more likely the base will be picked as a Target.
- The greater the number of enemy aircraft at a base, the more likely the base will be picked as a Target.
- The greater the amount of supplies in a base, the more likely the base will be picked as a Target.
- If a Target is targeted by another airstrike from another base, it is more likely to pick the same Target in order to concentrate efforts.
- If the target is at extended range, it is less likely to pick the Target.
- If the number of potential escorts at the unit's base is not sufficient to defend against the expected CAP at a Target, the Target is less likely to be selected.
- If the unit's altitude is set to 100, then the Target's AA defenses may deter the unit from picking the Target and cause it to abort.

## 7.2.2.13 Weather and Aborted Missions

Offensive Missions can be aborted after all preparations have been made, but prior to take-off, due to bad weather over the air unit's base or over the intended target. Hexes affected by bad weather blocks any air units from launching an airstrike from the hex, and it blocks any target in the hex from being attacked.

A line of bad weather will **not** stop an airstrike flying through the hex from a good weather hex to a good weather hex. A no-fly symbol (a cloud) will appear on the tactical map if the Show Clouds preference option is selected.

## 7.2.2.14 Failure to Find the Target

Aircraft can fail to find their Targets due to bad weather en route to or over their target, or due to the inability of the planes to locate their Target before they are forced to return to base due to fuel constraints.

The chance of missing the target depends on many factors:

- The greater the range to the Target, the greater the chance of failing to locate the Target.
- The chance of locating the Target is considerably increased if the Target is a base, a ground unit, a TF that is docked, unloading or loading, or a TF at its DH and set to Patrol.
- Planes flying to Targets beyond normal range but less than extended range have a greater chance of failing to find the Target.
- Planes with a faster cruising speed are more likely to fail to locate the Target.
- The further a TF has moved during the turn the greater the chance of failing to locate the TF as a Target.
- The smaller the TF, the greater the chance of failing to locate. The lower the detection level of the target and the lesser the experience of the attacking aircraft, the greater the chance to fail to locate the Target.
- In each airstrike, one air group is designated as the lead group for that strike. If the lead air group fails to find the Target, all air groups in the airstrike will fail to locate the Target. A message will be shown if a group fails to find a Target after takeoff.

## 7.2.2.15 Basing Carrier, Patrol, and Float Aircraft

Any fighter, fighter bomber, dive bomber, or torpedo bomber type plane can take off from an Aircraft Carrier, but not necessarily land back on the Carrier.

Only aircraft that start scenarios on a Carrier will have Carrier Trained on their Air Unit Information Screen. They function normally on Carriers, and may take off and land on a Carrier and perform non-transfer Missions from it:

Certain other units will be listed as Carrier Capable on their Air Unit Information Screen. These planes may be fully functional on Aircraft Carriers, but have a higher chance of suffering Operational Losses during take-offs and landings. Just because an aircraft is Carrier Capable (i.e. it is built for carrier operations, having a tailhook and other necessary equipment) does not mean the pilot flying it is trained to land and take off from one.

If an aircraft squadron is a fighter, fighter bomber, dive bomber, or torpedo bomber and is **not** Carrier Trained and Carrier Capable, and is located on a Carrier, it may only be transferred to a Carrier in the same hex (loaded with cranes, as they could not land on a Carrier) or may only fly from the Carrier when ordered to transfer to a base. Also, carriers may never carry more than 5 air units at one time.

Any Float plane or Float fighter may be based on a Battleship, Heavy Cruiser, CS, or other non-carrier type ship that has the capacity to carry aircraft. Aircraft Carriers (including Light Carriers and Escort Carriers) **cannot** carry float planes. Float planes, float fighters, and patrol planes can be based at any friendly airfield, including those that are size 0 as long as they are on a coastal hex.

## 7.2.2.16 Emergency Landings

Planes attempting to return to a Carrier that has been damaged sufficiently to prevent aircraft operations will instead attempt to land on another Carrier or airfield that is within its remaining range. Planes won't make an emergency landing on another Carrier in such a way as to cause it to exceed 110% of the carrier's aircraft capacity. Planes that are redirected in such a manner will attempt to return to their parent Carrier when conditions are improved (see **7.2.2.20 Automatic Air Unit Transfers**).

## 7.2.2.17 Operational Losses

In addition to losses due to combat, aircraft may be damaged or destroyed every time they fly due to operational losses. Every time an aircraft attempts to land it may be destroyed or damaged based on:

- Experience and Fatigue levels of the pilot
- Size of airfield or Carrier
- Damage to airfield or Carrier
- Damage suffered by the plane in combat
- The distance flown to the Target (this represents greater chance to get lost or have damage/fatigue impact a long flight).
- Missions at extended range double the chance of operational losses.
- Patrol Missions and CAP (not-long range CAP) treat the range to the target as 1 hex.
- Level bombers flying out of a small airfield cannot fly at extended range, and will be treated as if they are flying at extended range when bombing targets at normal range. Planes flying a Naval or ASW Search Mission will carry an extended range bomb load.

In order to avoid these penalties, the size of the airbase needs to be equal to:

**4 + (Max load of aircraft / 6500)**

All fractions are rounded down.

Thus, an A-20B requires a minimum size 4 base, a B17-E requires a minimum size 5 base, and a B29 requires a minimum size 7 base.

## 7.2.2.18 Withdrawing and Disbanding Air Units

You may order aircraft units at a base to be withdrawn or disbanded during the Orders Phase. When they are rested and recuperated, the group will become available again (see below). The aircraft left behind by a withdrawn/disbanded air group are distributed to the replacement pool. Planes are merged into another unit at the airbase with similar planes (your choice) but the pilots remain with the unit when withdrawn and will return when the unit reenters the game. In order for a withdrawal or a disbanding to occur, there must be a friendly air unit at the same base with the same model aircraft.

Disbanding means that pilots and aircraft are distributed to another group at the same location and which is equipped with the same aircraft model. Disbanding is the same as withdrawing except that the pilots are also merged with the unit that received the aircraft. Once a unit is disbanded or withdrawn, the computer will attempt to rebuild the unit again. This will be done 60 days after a withdrawal and 90 days after a disbanding. Planes and any needed pilots for this rebuilding of the unit will come from the replacement pool. When Carriers are sent off map, their

aircraft will be placed in the replacement pool and will be available as replacements. The pilots will remain with the air groups on the Carriers. When Carriers are recommitted to the map after they have had their aircraft placed in the replacement pool, they will attempt to refill their air groups from the replacement pool. Ship-based air groups are not allowed to disband.

## 7.2.2.19 Transfers

An air unit may only transfer once per turn and it can fly regular air Missions the turn it is transferred (note that only the planes and pilots are transferred; aviation support units must be moved like other ground units).

## 7.2.2.20 Automatic Air Unit Transfers

Certain air units will transfer-move automatically. If a Carrier air unit makes an emergency landing on an airfield or another carrier and in so doing causes the creation of a sub-unit, the aircraft in that sub-unit will automatically attempt to transfer back to its original Carrier. This will only happen if the Carrier is in a base and is capable of launching and recovering aircraft. Non-Carrier aircraft in a sub-unit that has split from its parent formation will attempt to automatically transfer so as to rejoin their parent formation.

In either case, once the sub-unit reaches the parent unit's hex, it will merge into the parent. Units that begin scenarios or enter as reinforcements with a sub-unit designation will not attempt to move to or merge with another formation (e.g., 11/ Yokohama Chutai, 1/ VCS-4 are treated as parent formations, not sub-units). Both of these kinds of Automatic Transfer movements will only occur if the parent formation (or original Carrier) is within two Transfer movements of the sub-unit. Both of these kinds of Automatic movement may cause the creation of additional sub-units as ready aircraft begin their movement and leave damaged and reserve aircraft behind. Damaged aircraft will always create a new sub group when transferred.

## 7.2.2.21 Mission Limitations from Size 1 Airfields

The following Missions will not be flown from airfields with a current size of 1:

- **Airfield Attack**
- **Port Attack**
- **Naval Attack**
- **Ground Attack**
- **(Fighter) Sweep**

These airfields were too small to support these kinds of offensive Missions.

## 7.2.2.22 Captured Airfields

When an airfield is captured, all aircraft at that base are destroyed. Air units destroyed in this manner will return as reinforcements in 390 days. Captured bases do not change their nationality; however, they will change their HQ that controls the base to one of the HQ's of a ground unit capturing the base, as determined by the computer.

Airfields that has been captured have a chance to sabotage their facilities before the capture takes place. The damage done can be none, minor, or severe.

## 7.2.2.23 Aircraft Carriers in Base Hexes

Air operations by aircraft carriers are limited if the aircraft carrier is in a base hex. Aircraft launching search, CAP or strike Missions from a carrier in a base hex will only launch 50% of the normal amount they would have launched. If the CAP is reinforced due by fighters on the ship due to the raid being spotted in time, only 50% of the fighters on the ship will reinforce the CAP.

## 7.3 AIR COMBAT

Aircraft was a central component of the Pacific campaign. Battles were fought to capture airbases that could be used as springboards for further advances (ground troops fought desperately for obscure but vital places such as Henderson Field on Guadalcanal). Warships and convoys plied their trade warily under the cover of night, seeking to avoid the watchful gaze of aircraft. The Americans and their allies fielded squadrons inexperienced yet backed up by ever more sophisticated aircraft and pilots who were better trained. The Japanese squadrons and their well-trained pilots acted early on as a razor-sharp sword that became blunted as attrition took its toll.

Air combat occurs when opposing aircraft meet in the same hex, and may happen during attack Missions such as Naval Attack, Ground Attack, Sweep, Escort, Search, and even Training and Transport Missions. When an air strike has been launched, the Tactical Map will center on the hex being attacked and a message box will flash telling you the aircraft that are in the strike, and what they're attacking. As they engage in combat, the results will be displayed.

Air to Air Combat results are based on aircraft type and performance, pilot skill level, number of aircraft, and other factors. Aircraft can be damaged or destroyed. Each time a plane is damaged or destroyed, it is added to the total reported on the Combat Summary. Thus, one plane can be damaged 4 times and then destroyed and it would cause a report of 4 planes damaged and one plane destroyed. Pilots on all sides were notorious for overclaiming kills.

Planes flying CAP from bases and TFs with radar will perform better at intercepting enemy airstrikes.

Damage on the ground varies with the type of ordnance, the hardness of the target, the morale and skill of the pilots as well as the defenders. Torpedoes will not be used to attack ships at anchor, so only bombs will be carried during Port Attack Missions. Aircraft Carriers are particularly vulnerable to damage from combat as they may suffer ammo or fuel storage hits that cause additional fires on board. Ground units are not individually targeted by the player; when a hex is targeted by an air unit that was given a Ground Attack Mission, the computer will determine which unit is bombed. Generally this will be the one with the greatest known assault value (intel based on the ground unit's detection level plus a random factor will determine this).

### 7.3.1 Combat Air Patrol (CAP)

In this game, the most important characteristic for Combat Air Patrol (CAP) is climb rate. Normally, only a few aircraft are in the air at once. When enemy aircraft are spotted by those aircraft that are airborne or by radar or ground forces assigned to watch for enemy aircraft, all planes available for CAP are scrambled.

CAP may react to defend a target as far as 2 hexes away. To do so, the hex to be defended **must** be attacked by **more** aircraft than are defending the hex, and the hex the CAP is going to come

from **must** be under attack by **less** aircraft than are currently flying CAP over that hex (checked for each air unit, one at a time).

The CAP that is going to fly out of their hex must have an extended range that would reach the hex to be defended (but no more than 2 hexes away). Also, in order for this extra coverage to happen, the attack must be detected by radar in time to allow for the CAP to reach the target (an intercept is allowed 33% of the time even when there is no radar). The exact number of aircraft that will cover outside their hex is dependent on how good the radar detection is on the incoming strike.

The altitude at which CAP is assigned is not important in the game, as all aircraft will end up at the same altitude, +/- 3,000 feet of the enemy bombers. But, planes being scrambled have to get up to that altitude. A high climb rate allows the fighters to climb to combat altitude before the bombers arrive at the target. Other factors include the experience of the pilots, the skill of the squadron commander, the Morale and Fatigue of the squadron, the presence of friendly radar, and the weather. The higher the plane's climb rate, the more aircraft that will be able to intercept the incoming force.

## 7.3.2 Air-To-Air Combat

Once aircraft have closed for combat, the most important factors include maneuverability and speed. If a plane has a significantly higher maneuverability, the pilot will try to dogfight. If the plane has a significantly higher speed, the pilot will try to make slashing attacks. Whether the pilot succeeds or not is primarily dependent on his skill.

So, you will find that a trainer type aircraft, such as the Wirraway, will suffer horribly against a high performance fighter, such as a Zero. The Zero is much faster and far more maneuverable. The only saving feature of the Wirraway is its rear-firing gunner. The Wildcat is also in trouble against a Zero, as it is not any faster and is less maneuverable. The Kittyhawk, on the other hand, is significantly faster and quite durable. As a result, the Kittyhawk pilot will try for slashing attacks, using his speed to fly by very quickly, fire his guns, and then dive or make a very lazy turn around and come back. He also can go head to head with the Zero and stand a good chance of living to tell the tale.

Later war Allied aircraft, such as the Lightning, Thunderbolt, or Corsair are adequately maneuverable and extremely fast and rugged. Very few Japanese aircraft can stand up to these planes. Pilot experience determines if the desired tactic can be achieved and squadron commander's air skill is influential. If the pilot's skill is low, they are not as good at these tactics and will not use them well. Fatigue and Morale are also important. It should also be noted that although the Combat Animations reports the total number of fighter aircraft attempting to engage, the actual number of planes that dogfight are usually much less. This is based on the temporary disruption taken during previous combat rounds, or the inability of CAP aircraft to reach the incoming strike in time. Also, it is possible for CAP to force a bomber group to abort its Mission prior to the bomber group's bomb run.

### **Air Combat Animations**

If Combat Animations is turned on, a graphic of the air battle will be displayed. Attacking aircraft are shown above the central dividing line, and defending aircraft are shown at the bottom. Fighters will always be displayed closest to the line, while bombers follow behind them. The number and type of aircraft is displayed underneath each aircraft icon, and may go down as the battle rages. Flak bursts and damage to aircraft will indicate misses and hits, respectively.

The central dividing line details the current situation and gives a text reference to what is occurring in the battle. The amount of delay between messages may be set in the Preferences and Options screen. If you do not want to watch the entire battle unfold, click the **Done** button in the upper right corner.

When the air strike reaches its target, this display will change depending on the type of raid, whether it is a naval attack or ground attack:

## **Naval Attack**

The display is similar to Air Combat, except individual ships that are defending themselves from attack are displayed at the bottom. Flak bursts and water spouts will indicate misses while hits are detailed by damage to aircraft and/or ships.

## **Ground Attack**

Ground Attacks include attacks on any enemy unit or structure in a land hex, and includes Ground Attacks, Airfield Attacks, Port Attacks, and City Attack Missions. The display is similar to Air Combat and Naval Combat, except the ground is seen through a bombsight (the ground pictured does not change, no matter the target). Hits on the area attacked are indicated by explosions in the bombsight, and Flak bursts and damage to aircraft indicates misses and hits by anti-air units, respectively.

When the battle is over, a summary of the combat will be displayed. This will detail the location attacked, the Japanese and Allied aircraft involved in the attack (and defense, if any), the aircraft losses suffered by both sides, and the resulting damage of the raid (if any). Click **Done** to exit out of the display and continue the game.

## **7.3.2.1 Bombers in Combat**

Endurance, speed, and bomb load are very important to the bomber. Aircraft such as the Flying Fortress have almost no maneuverability and will usually become damaged on the Mission, if opposed by interceptors or anti-aircraft artillery. However, damaged big bombers are lost more often on landing than in air-to-air combat. Smaller, faster aircraft, such as the Havoc, might be fast enough to avoid the better part of Flak and can maneuver against interceptors. This allows medium bombers, like the Mitchell, to fly unescorted Missions against the Japanese with an acceptable loss rate. Bombers without self-sealing fuel tanks, low durability, low speed, and only moderate firepower such as the Nell will suffer losses much higher than replacement rate, if unescorted and opposed. Bomb load is important, because it means more bomb damage and fewer Missions needing to be flown over the same target.

## **7.3.2.2 Ohka Bombs and Kamikazes**

G4M2e Betty bombers may carry the jet-powered Ohka (in English, „Cherry Blossom“) kamikaze attack aircraft. These bombers are **never** subject to Flak when undergoing a Naval Attack Mission, as they launch their payloads beyond the range of any TF anti-aircraft fire range. However, they **will** be subject to CAP attacks.

Kamikazes are activated if the Allies own a base within 15 hexes (traced by sea only) of either Tokyo, Takao, or Saigon. However, these will never activate before January 1, 1944. Once Kamikazes are activated, the Air Unit Information Screen for Japanese players will show a Kamikaze option if no squadron has been converted to kamikaze yet this day and if the aircraft



squadron is of the appropriate type (essentially anything other than a Transport aircraft squadron can become a Kamikaze squadron). The player is limited to one conversion per day, but may **not** re-convert a kamikaze unit to regular status. The computer will prompt the player to confirm their choice before proceeding, giving you a chance to reconsider.

Once a squadron is converted to Kamikaze, it may only conduct three Mission types – Kamikaze, Training, and Stand Down. The Kamikaze Mission is a variant of the Naval Attack Mission, which of course if successful means unit casualties. Training is not to imply that these pilots are training by crashing their aircraft into ships, but that they are trying to learn better flight techniques. Stand Down is detailed in section 7.1.

**Think carefully before converting a squadron into a Kamikaze unit; sometimes the men in the unit are experienced and more valuable to you in their „normal“ jobs. Likewise, however, a higher-experience Kamikaze unit will fly better than one full of trainees.**

### 7.3.2.3 Altitudes

If opposing bombers or flying escort, fighter altitude is determined pretty much by the bomber altitude. The Airacobra, lacking a super-charger, does not perform well at high altitudes. To take advantage of this, the Japanese player might make a high altitude fighter sweep at the same time he launches an attack by bombers (from the same base). This would simulate high cover. Otherwise, the escorts will fly close cover. The higher the bomber, the less chance it will take damage from anti-aircraft artillery. However, with higher altitude, their chance of hitting anything is reduced.

### 7.3.2.4 Range

Pilots and crews become fatigued as they fly. A long Mission will cause them to end up with a high Fatigue and Disruption rate upon arriving at the target. For instance, flying a Zero from Truk to Lunga is much more tiring than flying from Truk to Rabaul, and squadron performance suffers accordingly.

Also, damaged planes will be less likely to return successfully to their base if they have to fly a long return trip. Planes that are damaged in combat will show up as either Flak or air combat losses if they don't get home safely (and the enemy pilot will get credit for a kill). Planes that are not damaged, but do not return safely are counted as operational losses. ***Long range Missions will take a tremendous operational toll on pilots and aircraft.***

### 7.3.2.5 Incidental Combat

Planes flying into a hex that contains enemy aircraft may at any point of combat resolution be caught up in an air battle in that hex. Thus, while witnessing one set of planes fighting each other, other planes not with that particular set may end up participating and becoming casualties in the air to air fighting.

## 8.0 GROUND UNITS

*"Goddam it, you'll never get the Purple Heart hiding in a foxhole! Follow me!"*

*- Captain Henry P. "Jim" Crowe, Guadalcanal, January 13, 1943*

While most of the war in the Pacific was centered around the island-hopping campaigns and fierce naval and air battles, the land war was no less important. Battles raged across stark, barren atolls and the vast inner reaches of China and Southeast Asia. The small size and harsh terrain of the Pacific islands, as well as the difficulties in transporting and supplying ground forces, meant that the troops fielded by either side didn't total more than a few divisions, while the large land masses of Asia saw hundreds of divisions battling.

Yet while the lowly rifleman didn't have the prestige of an Aircraft Carrier or a heavy bomber, he could at least take pride that the Navy and Air Force couldn't survive without him. Ground troops were needed to seize and defend bases and ports needed by air and naval forces. Success in *War in the Pacific - The Struggle Against Japan, 1941-45™* depends on using what soldiers you have well.

Ground units may move overland and may be transported by sea or by air. Parachute units can be airdropped onto enemy bases. Ground units can also entrench in place to increase their defensive abilities. Certain ground units may assault enemy ground units and in this way capture enemy bases.

Ground units represent battalion and larger-sized maneuver formations. These are made up of individual squads, guns, and vehicles, all of many different types. A typical infantry brigade has support troops, numerous guns, and infantry squads. However, the orders you give will be to the **maneuver units** rather than the **individual** squads and support troops. Maneuver units are represented on the map as ground unit icons; the support troops associated with the maneuver units move with them. Each of these maneuver units contain various types of squads that determine their parent unit's abilities. The various maneuver and HQ units you control are:

### 8.1 UNIT TYPES

Maneuver units consist of several different nationalities and forces:

- IJ Army
- IJ Navy
- US Navy
- US Army
- US Marines
- Australian
- New Zealand
- British
- French
- Dutch
- Chinese
- Soviet

- Indian
- Commonwealth
- Philippines
- Canada

There are seven basic ground unit types:

- Headquarters
- Infantry (including cavalry and parachute units)
- Engineer (including base forces and aviation support troops)
- Air Defense
- Artillery and Anti-Tank Guns
- Armor
- Coastal Defense

**Pictured below are icons from the Allied side for clarity purposes; symbols representing the Japanese ground forces will appear with the same symbols but with a red background.**

## 8.1.1 Headquarters



These are all support troops (the much-maligned “brass” sitting in the rear). However, these rear-area troops earn their keep in *War in the Pacific - The Struggle Against Japan, 1941-45™* by providing large numbers of support personnel for construction and logistics tasks. They give combat benefits to combat units who are within a certain range, generally the same hex, and enable more bombers to fly Missions from bases under their control. A unit can benefit from its HQ, of which there are five types:

- **Command** - Help in several ways. They help in giving a bonus to ground combat. If no Corps HQ is in range of a ground unit, the Command HQ can give a bonus like a Corps HQ if it is in range of a ground unit. If there is a Corps HQ within range of the battle, and the Command HQ is within 2 times its command range of the battle, it can add up to an additional 90% bonus to the Assault Value of an attacking force for odds calculations. The bonuses are impacted by the leaderships rating of the commander of the HQs. Command HQs are also important for air replacements and upgrades (see those sections for details).
- **Corps** – Helps with ground combat. Ground units in range can gain up to a 10% bonus to their Assault Value (whether attacking or defending).
- **Amphibious** – Helps amphibious invasions suffer less losses.
- **Naval** – Helps to speed ship repair time.
- **Air** – Helps by allowing more aircraft to fly.

If a friendly base is in a hex with a Command HQ, the base will attempt to stockpile 25000 extra supplies. This is in addition to whatever supplies would normally try to move to the base to meet current and expected supply needs of the forces in the hex.

## 8.1.2 Combat Infantry, Parachute Infantry, and Cavalry



These maneuver units typically consist of multiple types of sub-units. For example, the 30th Australian Brigade begins one scenario in the game with: 117 ANZAC squads, 12 81 mm mortars, 16 37mm Guns, 12 25 lb. Howitzers, and 143 support squads. On the top of the units' information screen, we find that this totals out to 1,287 infantrymen, no vehicles, 40 guns, and 3,144 second-line troops (cooks, armorers, etc.). Don't be surprised that there are twice as many support as combat troops. The grunts may complain about the lazy "garritroopers" in the rear, but without them the infantry would have no food in their bellies or ammo in their guns.

## 8.1.3 Engineers



These units include Combat Engineers, Construction units (such as the famed U.S. Navy Sea Bees), and Base Force units. All engineer squads and vehicles can construct and repair base facilities. Combat Engineer units differ from regular engineer units in that they have an extra name added to their name (e.g. IJA Engineer Squad). Combat Engineers can also destroy enemy fortifications during combat.

Base Force and other Aviation ground units contain Aviation Support troops to service aircraft and engineers to construct and maintain the base facilities. Without them, aircraft won't be flying often. Note that Aviation Support troops are not attached to any particular squadron – their presence at a base is enough to support the air units present

## 8.1.4 Air Defense Units



These safeguard your bases and ground units. Without anti-aircraft guns, your bases and troops are vulnerable to air attack. However, they don't survive long in a ground assault.

## 8.1.5 Artillery and Anti-Tank Guns



These units consist entirely of guns and their direct support troops. These are the big guns backing up your infantry.

## 8.1.6 Armor



You won't find many of these units in the Pacific as opposed to Europe (just try blitzing through jungle and mountains). But in support of infantry, tanks are deadly against an enemy lacking anti-tank weapons.

## 8.1.7 Coast Defense Units



These are units consisting of various guns that can fire against ships and invasion troops attacking their hex. Coast Defense units that have the word „Fort“ in their name or certain large guns are static and cannot move.

These units include USMC Defense Battalions or Coastal Artillery. A gun icon will appear when coastal guns fire on transports. Fire results will be summarized in the Combat Summary screen.

## 8.2 GROUND UNIT INFORMATION SCREEN

Below, the cursor is over a ground unit icon at Port Moresby. We see a floating box with a list of the maneuver units present in the hex and the squads and vehicles that make up these maneuver units. In this case, there are five ground units present in the same hex as Port Moresby:



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Clicking the Ground Unit icon will display a list of all units in the hex, as follows:

Allied Ground Units at Port Moresby			All Units	HQ Units	Infantry	Armies	Artillery	Engineers	Port Moresby
Type	Name	Attached to	Load cost	Assault	Supplies				
INF	Port Moresby Defense Bde	Australia Command	3100	74	217				
ENG	No. 112 RAN Base Force	Australia Command	4798	32	281				
ENG	51st Base Force	Southwest Pacific	4447	38	262				
INF	30th Australian Bde	Southwest Pacific	4862	112	333				
ENG	111th Base Force	Southwest Pacific	4276	38	262				
									Fortifications (3) Building Engineers: 97 Engineer Vehicles: 28 Infantry: 3353 Vehicles: 0 Guns: 182 Second Line Troops: 17267 Assault Strength: 294
									Supplies: 3874 Supplies Required: 2296
									Back Exit

This screen displays the ground unit's **Type** (e.g., Inf for Infantry, Eng for Engineers, etc.), the **Name** of the ground unit, what command the unit is **Attached to**, as well as the **Load Cost**, **Assault Value**, and number of **Supplies** for each unit.

To the right of this information is a summary of the base's information (if the ground unit is located in a base hex). From this information we can see that Port Moresby has a **Fortification** level of **3** and is expanding on that by **building** further, has **97 Engineers** present in the hex along with **28 Engineer Vehicles**, **3353 Infantry**, **0 Vehicles** (fighting vehicles, that is, such as tanks or armored cars – not engineer-type vehicles), **182 Guns**, **17267 Second-Line Troops** (the support personnel), and the combined **Assault Strength** (or **Value**) of all ground units present (**294**). Also the number of supplies present and supplies required for maximum efficiency of all units in the hex is displayed here.

Clicking on a specific unit's name will bring up a new screen for that particular unit:

30th Australian Brigade, Infantry Unit (102/102) Attached to: <b>Southwest Pacific</b> Australian unit with 3 Ports		<input checked="" type="checkbox"/> Infantry: 1296 Vehicles: 0 Guns: 44 Second Line Troops: 3566		Set Destination Hex March Objective: None
Commander: <b>BGEN Hutton, N.G.</b> Leadership: 60 - Inspiration: 50		This unit is composed of:		March Direction: March Distance: Distance Traveled:
Experience: 65 Morale: 70		ANZAC Infantry Squad (0) x 108 ANZAC Engineer Squad (0) x 9 81mm Mortar (0) x 12 57mm AT Gun (0) x 8 155mm Howitzer (0) x 24 Engineers (0) x 9 Support (1) x 152		<input checked="" type="checkbox"/> <b>Tactical Status</b> Order Bombardment Attack Order Deliberate Attack Order Shock Attack Do Not Pursue Enemy
Disruption: 2 Fatigue: 9				<input checked="" type="checkbox"/> <b>Set All To Defend</b> Set All To Attack Set All To Follow Set All To March
Supplies: 333 Supplies Required: 323				<input checked="" type="checkbox"/> <b>Set Future Objective</b> <input checked="" type="checkbox"/> <b>Set All</b> Port Moresby (1)
Support: 152 Support Required: 152 Assault Strength: 112				
Load Cost AP: 5382 Load Cost AF: 28272 Load Cost LST: 2904				
Control Zone: SE Control: Human				
<input checked="" type="checkbox"/> Divide Unit <input checked="" type="checkbox"/> Accept replacements		<input checked="" type="checkbox"/> Show unit TOE		<input checked="" type="checkbox"/> Next Ground Unit <input checked="" type="checkbox"/> Back <input checked="" type="checkbox"/> Exit

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In this case, we have selected the **30th Australian Brigade**, an **Infantry Unit**. The **102/102** indicates that the first number is the number of ready elements divided by the total number of TOE elements, while the second number is the total number of ready elements and disabled elements divided by the total number of TOE elements. It is attached to the **Southwest Pacific** command, and is an **Australian** unit located in an area with **3 Forts** (or, a Fortification level of 3, as we saw on the summary screen earlier).

Commander:	BGEN Hatton, N.G.
Leadership:	60 - Inspiration: 50
Experience:	65
Morale:	70
Disruption:	2
Fatigue:	9
Supplies:	333
Supplies Required:	323
Support:	152
Support Required:	170
Assault Strength:	112
Load Cost AP:	5352
Load Cost AK:	28272
Load Cost LST:	9904
Control Zone:	SE
Control:	Human
<input type="button" value="Divide Unit"/> <input type="button" value="Accept replacements"/> <input type="button" value="Show unit TOE"/>	

In the leftmost column, we can find the following information on this unit:

- The unit's **Commander (BGEN Hatton, N.G.)**
- The commander's **Leadership (60)** and **Inspiration (50)** ratings (the higher these ratings, the more efficient the troops under his command are in combat)
- The unit's **Experience (65)** and **Morale (70)** (the former coming from combat experience and the latter from the unit's current situation, including losses, supply, etc.)
- The unit's **Disruption (2)** and **Fatigue (9)** (the former from taking combat losses, the latter from being involved in any activity other than sitting still)

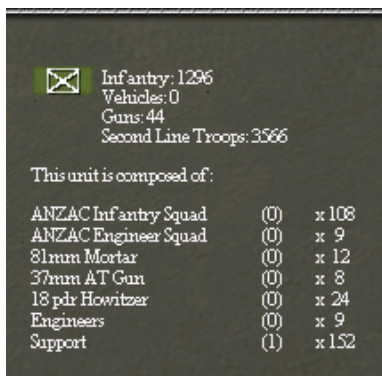
**Ground units with a Fatigue greater than 90 and Morale less than 10 may not enter an enemy occupied hex.**

- The **Supplies** the unit currently has with it (**333**), and the **Supplies Required (323)** to keep it in combat shape (if there are not enough Supplies, the latter number will be red)
- The **Support** value (152) is the amount of intrinsic support (i.e., support within the unit) that is available, while the **Support Required** value (170) indicates the number of support squads needed to fully support the men and equipment in the unit. Since this unit is in a base hex, it is drawing support from the base and will not suffer any ill effects; however, if it moves out of the hex, it will be short of support. One support squad is needed for every non Support or Aviation Support element in the unit. Support in a friendly base hex can be shared between units, so as long as the total support in the hex is greater than the support needed by all the units in the hex, the units will be fully supported. Support is not shared if not in a friendly base hex.
- The unit's **Assault Strength** (or, Assault Value), which is the measure of the unit's ability to attack and defend in ground combat.
- The unit's **Load Cost**, which is used against a transport unit's capacity when the unit is moved, measured in terms of **AP**, **AK**, and **LST** type ships (showing the total amount of Capacity this one unit will need in order to be transported). If the load cost is listed as **Static**, the unit cannot be loaded.
- The **Control Zone** of the unit (currently **SE**, or Southeast), and the base is under **Human** control.

In addition, there are three commands:

- **Divide Unit:** Select the arrow to the left of this title in order to divide the unit into three smaller units in the case of Divisions and Corps; the first unit will have a designation /A displayed next to its name, the second /B, and the third /C. If it is a Brigade sized unit, it can only divide into two parts (/A and /B). If all units are located in the same hex, the Divide Unit option will instead display as **Rebuild Unit**. Clicking Rebuild Unit will then recombine the parts into one whole unit. It is important that the recombining units have the exact same kind of equipment; otherwise the recombination will not work.
- **Do not accept replacements/Accept replacements:** Select the arrow to the left of this title in order to either not allow or allow replacements to fill out losses it has. This command is useful for priority in terms of theaters of war. Also, taking replacements uses up supplies, so you may not want to take replacements in areas where supply is hard to come by. Not accepting replacements will not impact upgrades, which may not be stopped and will happen automatically.
- **Show unit TOE:** Clicking this option will change how the central column displays. If this option is selected, the central column will list the ideal composition of the unit; once selected this option changes to **Show unit values**, which changes the column back to showing the current inventory of each item.

**TOE stands for Table of Organization and Equipment, which is a standard way of describing a unit's inventory. The original list of the unit's TOE (as it appears at the beginning of the scenario) will remain the same and will not change to reflect new weapon types, but units can still upgrade.**



The central column displays:

- The number of **Infantry (1296)** (essentially, riflemen and support gunners), **Vehicles (0)** (such as jeeps, trucks, and halftracks), **Guns (44)**, and **Second Line Troops (3566)** (support and supply personnel) in the unit
- The unit's composition, broken down by unit type. The number at the far right is the number of ready (healthy, combat effective) elements. The number in parenthesis is the number of disabled (non-combat effective) elements.

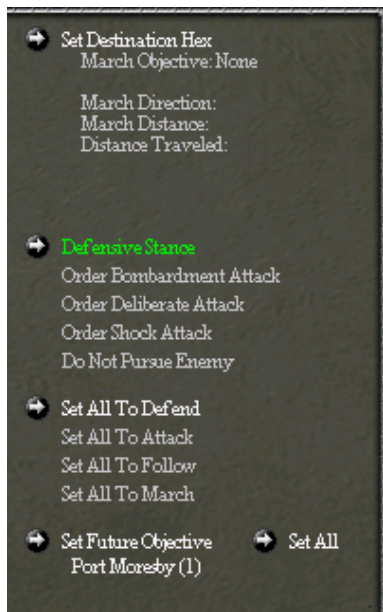


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In the above example, we see that the 25th Division currently has 312 ready squads and 52 disabled squads. If, however, the Show unit TOE selection is made from the lower left corner of the screen, this information will change:

This is the ideal composition of this unit.



The rightmost column displays the unit's orders; from here, movement commands may be issued and combat commands set up:

- The **Set Destination Hex** arrow button may be clicked to order the current unit to move to another location. Note that if this other location is across ocean hexsides, the order will not be carried out; in this case, the player must set up naval transport.
- The unit's **Stance**, which includes:

**Defensive** – The only option for a unit that is not conducting an attack. If an attack is not possible (i.e., no enemy units to attack), none of the attack options will be available.

- Orders, including:

**Order Bombardment Attack** (see 8.4.1 Ground Combat Missions for details)

**Order Deliberate Attack** (see 8.4.1 Ground Combat Missions for details)

**Order Shock Attack** (see 8.4.1 Ground Combat Missions for details)

**Do Not Pursue Enemy** – Orders ground units in the hex to not pursue retreating enemy units. Otherwise, units can be set to Pursue the enemy if they retreat.

[Refer to section 8.4.1 for the impact of the Pursue order.](#)

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- **Set All to Defend** – Will set all ground units in the hex to a Defensive stance, and will cancel all movement orders for all ground units in the hex.
- **Set All to Attack** – Orders all ground units in the hex to attack in the same manner as the current unit (or bombardment if a unit is not capable of other types of attack, e.g. artillery units).
- **Set All to Follow** – Orders all ground units in the hex to follow the current unit. No following unit will enter a new hex until the unit they were ordered to follow enters first. For example, if Unit 1 is the current unit and Unit 2 and 3 are in the same hex, and this command is selected, Unit 2 and Unit 3 will follow Unit 1. Units 2 and 3 will not enter a new hex until Unit 1 does.
- **Set All to March** – Orders all ground units in the hex to march to the same destination hex that is set for the current unit.

The **Set Future Objective** command has to do with Planning for action at an Objective (or Planning points). When the Set Future Objective button is pressed the map will appear and you must click on a base/beach hex. This will set the unit's *future* objective. The number in parenthesis next to the objective is reset to 0 if the objective set is a new objective. This number will increase 1 or 2 points per turn, with a maximum value of 100. The higher the number, the greater the benefit when the unit participates in combat in the objective hex (whether attacker or defender). There is also value obtained if a nearby HQ has Planning points accumulated towards the objective when combat takes place there. Having a high planning value is critical in reducing losses that are taken when amphibiously invading an enemy base (or non-base hex with enemy units).

Once a unit reaches 100 planning points, it may conduct training to increase its experience rating. Each nationality has a basic experience value that their units can train to without having to be in combat. As long as you are under this value and have 100 planning points, there is a chance the unit will gain experience.

The following table details the maximum level a unit may train to, based on its Nationality:

<b>IJ Army</b>	55	<b>IJ Navy</b>	50
<b>US Navy</b>	50	<b>US Army</b>	60
<b>US Marines</b>	65	<b>Australian</b>	65
<b>New Zealand</b>	55	<b>British</b>	55
<b>French</b>	55	<b>Dutch</b>	50
<b>Chinese</b>	45	<b>Soviet</b>	60
<b>Indian</b>	55	<b>Commonwealth</b>	55
<b>Philippines</b>	45	<b>Canada</b>	50

The **Set All** command sets all units in the hex to the same Future Objective as the current unit.

Finally, at the bottom are additional controls:

- **Next Ground Unit** – Clicking the arrows to the left and right of this command will scroll through the ground units present in the currently selected hex
- **Back** – Select to return to the Tactical Map (if no previous windows exist).
- **Exit** – Select to return to the Tactical Map.

There are numerous ground elements that are used to make up the maneuver formations. They include:

- Infantry squads
- Individual artillery pieces
- Mortars
- Vehicles
- Tanks
- Tank Destroyers
- Gun motor carriages
- Support squads
- Aviation Support squads
- Engineer squads

If a number in parenthesis is displayed, it measures the number of disabled units of that type that won't fight until repaired/healed and brought back to operational status. While disabled, a ground element will have its manpower counted in the infantry and second line troop totals as if it was at half strength. Thus, the number of troops can be very misleading. A unit with 100 disabled infantry squads of 12 men each would list as having 600 riflemen, not 1200; however, these 600 would be of absolutely no value in combat.

## 8.3 GROUND UNIT OVERLAND MOVEMENT

The Speed of movement overland by ground units is dependent on the terrain being traveled. The basic march speed of a ground unit is obtained from the following table, showing the maximum number of miles moved per 24 hour period over each terrain type, depending on the type of unit. For example, an infantry unit will move 10 miles over Clear terrain, or 30 miles on a road. These are *maximum* numbers and could be lowered depending on fatigue of the unit; the higher the unit's Fatigue the less farther it will travel in each 24 hour period.

	Artillery, AA, Engineers	Infantry, Airborne	Armor	All Other (Non-Static) Ground Units
<b>Atoll</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Clear</b>	<b>10</b>	<b>10</b>	<b>30</b>	<b>3</b>
<b>Forest/ Jungle</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>2</b>
<b>Mountain</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Desert</b>	<b>10</b>	<b>10</b>	<b>30</b>	<b>3</b>
<b>Swamp</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Trail</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>3</b>
<b>Road</b>	<b>30</b>	<b>30</b>	<b>60</b>	<b>15</b>
<b>Rail/Highway</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>

Units moving on trails over Clear terrain will move at the Clear terrain speed.

These speeds are the fastest speed possible, and actual speeds may be slower based on the fatigue of the unit moving. Rivers do not slow travel speed, but moving across a river hexside into a hex with enemy units will cause an increase in the disruption of the moving units.

Ground units can be ordered to move by giving them a Destination Hex (DH).

Units moving along a rail/highway, road or trail from one of these hexes to another hex will gain the benefit of the rail/highway, road or trail speed that is in the hex being moved into. Because each hex is 60 miles, the unit will stay in its current hex until it has marched 60 miles, at which point it will move to the next hex along the path to the unit's final destination. If a unit already marching is given a new Destination Hex that entails an immediate change in direction towards a different hex, the unit will need to double back and march 60 miles before it enters the new hex (it's current march distance traveled will be set to 0). No matter the fatigue of the unit, all units will move a minimum of 1 mile every 24 hours.

Units can only be ordered to march to locations where they will be able to trace a valid supply path. Units that begin a turn in an enemy occupied hex may only set a DH that is a friendly base/beach hex, and only if a valid supply path can be traced from the unit to the base/beach hex. To order a ground unit to move to a specific hex, the path of the move must generate a supply path value of no more than 900 using these costs per hex to be moved:

- Rail/Highway: **2**
- Road: **5**
- Trail: **25**
- Cross Country: **50**

For example a unit cannot be ordered to move more than 18 hexes cross country.

Ground units will move along a path that provides the best possible supply route from their current hex to their destination.

### 8.3.1 Transporting Ground Units

Ground units may be transported by any ship with a cargo capacity, except for AO and TK class ships that can only carry fuel. Ships with an "emergency transport capacity" may also carry troops in Fast Transport Missions and may rescue personnel that were on board a ship that sinks. Transported ground units may be unloaded on any hex that contains land. Port size determines the speed of unloading, so the process is very slow if coming ashore "over the beach."

Ground units can also be carried by certain cargo carrying aircraft. Parachute battalions may be dropped by transport aircraft on any base hex.

Units unloading in a hex where the base is not owned are shot at by dual purpose, artillery, and other eligible weapon systems, if present. These units have a chance to hit the transport as well as a chance to hit the ground unit element unloading.

### 8.3.2 Japanese Movement

If Japanese ground units move east of column 132 (inclusive), then all American and Canadian air and ground reinforcements will have their delay reduced by 180 days. Also, several U.S. infantry divisions will become immediately available.

If playing as the Japanese you will therefore find it near impossible to mount an effective invasion of the American (or Canadian) West Coast. Air raids on this area, however, have no effect on this rule, nor do Japanese ships prowling east of this column.

## 8.4 GROUND COMBAT

Ground combat in the Pacific theater, with few exceptions, tended to be a slow, bloody battle of attrition. The terrain barred most use of armor, leaving the fighting to be done by the infantry and whatever artillery could be manhandled through the terrain. Victory rarely came in a sudden spurt of glory; defenders had to be rooted out of the difficult terrain, and usually at a high cost to the attacker. The Allies tried to rely on whatever firepower they could muster; the Japanese relied on the martial fervor of their troops, even if the most ardent fervor flickered under starvation and disease.

In addition, combat taking place on atolls is more intense than in any other location due to their small size. Units that do not own the base on the atoll being invaded (i.e., American forces invading a Japanese-held atoll) automatically launch a Shock Attack, which usually means higher casualties for the attacker. In addition to the Shock Attack, the combat formulas will make combat on an atoll more costly in casualties to both sides than in other hexes.

Other terrain types affect combat, whether it be clear, forest, mountain, desert, or swamp; the more thick and impassible the terrain, the more it favors the defense. Rivers disrupt units attacking across them, making their efficiency in combat lower. In addition to it being harder to hit defenders in cover terrain, the assault value of the defending force is multiplied by the following for combat odds calculations:

- Urban x4
- Mountain or Swamp x3
- Jungle/Forest x2

In addition, fortifications can multiply the defending force's assault value for odds by up to three.

Ground combat occurs whenever at least one unit is ordered to attack. When combat takes place in a hex, all units in the hex ordered to attack and all defending units in the hex will participate at once. Ground combat can only occur between units in the same hex. Maneuver units can attack individually, or if the Set All to Attack order is given, all units that can execute the current unit's attack order will be given that exact attack order. If the order is to execute a Deliberate or Shock Attack, units that can only Bombard will be given the bombardment attack order instead.

Ground combat is resolved once a day during the Ground Combat Sub-Phase. If both sides have been given attack orders, the Japanese attack is resolved first and then the Allied attack is resolved. First, defending units fire at the attacker. Attacking units ordered to execute a Bombardment attack will only be fired upon by defending artillery type elements. Support type squads (support, aviation support, and engineers) will only fire if they are being attacked in close combat by enemy troops (determined by the computer). Fortifications enhance the defensive fire of ground units and also make defenders harder to hit; therefore, defenders are given some advantages in the calculation of the odds.

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After defensive fire, attacking units will fire at the defender, with attackers plotted to bombard using their appropriate artillery elements. Defenders in fortifications are harder to hit. Attacking combat engineer units (those with infantry type squads in the unit) attempt to reduce fortifications. Once all fire is resolved, the survivors calculate an adjusted odds of attack (attacker strength versus defender strength). The ground combat sequences proceeds as follows:

1. Defender fires
2. Attacker fires
3. Assault values for surviving forces are determined, as well as the minimum odds for a successful assault

**Defending support type squads are counted as having an assault value of 1/10 for odds calculations.**

4. Combat Engineers reduce the value of the defender's fortifications
5. Assault is resolved and the base holds or is captured

Weapons may only fire if they have successfully acquired a Target. Target acquisition is affected by the Target's detection level, the firing unit's fortification level and experience, and the maximum range of both the firing and target unit. Success in firing at soft targets is determined by the weapon's anti-soft target rating, while success against armored targets is determined by comparing the weapon's penetration to the Target's armor. Successful fire will result in the target unit gaining disruption and the target weapon being disabled or destroyed.

**Note that a unit marching into an enemy occupied hex will have its Detection Level raised to a point where the enemy can automatically spot it.**

The exact effectiveness of fire combat is determined by:

- Weapon values
- Unit leader values
- Unit disruption
- Unit fatigue
- Unit supply level
- Type of attack - defensive fire is doubled against shock attacks

Unit leaders and HQs that are within their command ranges of the battle heavily affect these odds. Units executing a Shock Attack are doubled for odds calculation purposes. Based on these odds, some fortifications may be destroyed, a base may be captured, and the defending side may be forced to retreat or surrender. Unit Fatigue, Terrain, Disruption, Experience, Morale, and Leadership directly impact combat firepower, losses, and the odds of attack. Losses taken in combat include the destruction or disabling of squads, guns, and vehicles. Disabled elements are not allowed to fire during combat, and may be destroyed. Disabled elements (the numbers listed in parenthesis on the Ground Unit Information Screen) may be healed/repared and listed again normally (this requires supply, support troops, and a low Fatigue level) however, if all the ground units on one side in a contested hex are disabled and cannot retreat, they will be destroyed.

When Bombarding or firing defensively at a unit that is Bombarding, only weapons with a range of at least 3 and an anti-soft rating of at least 5 may fire. Coast defense naval guns and dual purpose guns with a range less than 15,000 yards may not fire. Not all weapons will fire, but the longer the range of the weapon the greater the chance of firing.

Bases may be captured due to ground combat based on the calculated odds at the end of the combat. The higher the fortification level, the harder it is to capture a base. The adjusted combat odds must exceed or equal the fortification level for the base plus two for the base to fall. Example: a fort level of 5 requires 7 to 1 odds to capture.

If a unit is forced to retreat, but cannot, it will go into an elimination routine if the odds are high enough vs. the amount of troops remaining or if it is an atoll. Once in the elimination routine, if the defender is Allied, the force will surrender. If the defender is Japanese, each unit will make a separate test as follows: If unit Assault value is < die (10) then the unit is destroyed. For each unit that isn't destroyed it's fort level is set to 0 and it is shot at by all the attacking units and any survivors then shoot at the attackers (this is a banzai charge).

**Forts may never retreat, and are destroyed if forced to do so. Individual guns that are static (i.e. immobile) are destroyed if their unit is forced to retreat.**

Bases that have been captured have a chance to have their facilities damaged before the capture takes place. The chance and amount damage done can be increased by the presence of defending engineers.

Fortifications can be reduced in level by enemy ground attacks; the Fortification Level of a hex drops by one if the combat odds are 1 to 1 or greater. If no units are using a Deliberate Attack (i.e. all attacking are using Shock Attack or Bombardment Attack), then the Fortification Level will be reduced by 1 for **each** odds level (i.e. 4 to 1 odds would reduce the Fortification Level by 4). Also, combat engineers participating in attacks against bases can reduce fortifications by up to one level per day, making it easier to take the base.

If during combat a defending unit suffers extremely high casualties or high odds are achieved, it will automatically retreat to an adjacent hex. The hex retreated to must be able to trace a valid supply path to a friendly base and cannot be solely occupied by enemy units. If there is no valid hex to retreat to, the unit may surrender or if Japanese execute a banzai charge. Combat units that retreat will lose their supplies.

### **Ground Combat Animations**

If Combat Animations are turned on, the Ground Combat screen will detail combat between enemy ground forces. As the battle rages, results will display in the center text area.

When finished, a Combat Summary screen will be displayed. This details the location, type of attack made, composition of the attacking and defending forces, the assault odds for the attacker, whether or not the attacker captures the base, and any casualties that were suffered by both sides.

## **8.4.1 Ground Combat Missions**

There are three types of ground combat Missions:

1. **Bombardment Attack** means the unit will toss artillery shells at the enemy from long range (and possibly receive counter-battery fire). This will only do minor damage and disruption to ground units. Weapon types with a range of 3 and an anti-soft rating of at least 5 may fire in a Bombardment Attack. In order to plot a Bombardment the unit must have at least one suitable weapon available and must be an Infantry, Armor, Artillery or Coast Defense unit.

Only the attacker's artillery weapons may fire or be fired at; the defender's artillery weapons may also fire, but any defender weapon may not be targeted.

2. **Deliberate Attack** is the standard attack. In order to plot a deliberate attack the unit must have an assault value of at least one.
3. **Shock Attack** is going all out, risking higher casualties in order to increase the chance to overwhelm an enemy position. In order to plot a Shock Attack the unit must have an Assault Value of at least one. Attack orders remain in effect from day to day. However, Deliberate and Shock Attack orders are cancelled for any units participating in an attack executed at odds of less than 1 to 1. This cancellation occurs after the battle is fully resolved.

You can toggle on/off the option **Pursue Enemy** and **Do Not Pursue Enemy**. If toggled on and during an attack, *and* the unit forces a retreat of all enemy ground units, the attacking unit will march toward the hex the enemy retreated to and should automatically move 15 miles toward that objective unless it is an armored unit in which case it moves 30 miles.

## 8.4.2 Ground Units and Fortifications

Ground units that are in a base/beach hex assume the fortification level of the base/beach. Ground units that are not in a base/beach and are not moving will automatically attempt to build fortifications to protect themselves from attacking enemy ground units. Engineers in the hex will help in the building of these fortifications. Although fortifications can be built by units without the help of engineers, the work will proceed very slowly.

## 8.4.3 Disruption

Disruption represents a degradation to a ground unit's combat capabilities caused by combat or poor command control. Disruption may occur every turn depending on the state of the ground unit:

- Any kind of attack against a ground unit will inflict disruption.
- Moving across a river hexside into a hex containing an enemy unit will inflict disruption.
- Units remove Disruption every turn, and will generally remove even high levels of Disruption within a few days (recovering Fatigue, however, takes far longer).
- Attack at odds stated as 0 to 1 (less than 1 to 1) will cause a large amount of disruption to the attacking units.

## 8.5 CHINESE PARTISANS

Partisans appear in China only during games in which a human player is playing the Japanese player and only if the scenario is a full map scenario.

All Chinese Nationality bases that are controlled by the Japanese are subject to Chinese Partisan attacks. The Japanese player must keep a total *assault value* at the base equal to:

***The value of all industry at the base divided by 2 (not manpower, but including Resource and Oil Centers) plus 10 times the combined airfield and port sizes of the base.***

For example, Shanghai in the 1941 scenario has a total industry value of 570 (not including manpower) and a combined airfield and port size of 12. So, this total would be:



$570 / 2 + 120 = 405$

If this value in assault troops is not kept at the base, then the base facilities and industry facilities are subject to damage (similar to demolition upon capture). This includes damaging port and airfield facilities, supplies, fuel, oil, resources, and all industry items (except manpower). The number of assault points at a base and the number needed to properly garrison the base is listed in the Base Screen at the top center and in the List All Ground Units in the Hex screen on the right. It will appear in Shanghai as **Garrison: 18 / 405**. The number **18** is the current Assault Value of all units in the hex, while **405** is the *required* Assault Value. As you can see here, the Japanese don't have anywhere near the required garrison and are sure to expect Partisan activity.

## 8.5.1 Chinese Restrictions

Chinese units are not allowed to move into Russia/Mongolia.

## 8.6 RUSSIA AND THE MANCHUKUO GARRISON

The Japanese side (if played by a human player) must maintain a minimum garrison in Manchukuo in order to avoid Soviet Union (Russia) Activation. Soviet neutrality limits their units' movement and air strikes until they are at war with Japan. Activation is the equivalent of a Soviet declaration of war on Japan.

As a result, a certain total assault value of Japanese ground units is required to occupy this area to avoid a Soviet invasion. The Russians may not move any units (air or ground, including launching air attacks or searches, even CAP) until they are activated. They also cannot change HQ's before being activated. However, they may conduct Training Missions. Japanese air units may not target Soviet units until the Soviets are activated.

Any unit in the Northwest Control Zone counts toward this requirement. The assault value needed is 8000 at all times. If the total is **not** met there will be a small chance each day that the Soviets will activate.

On the Japanese Intel Screen you will find a line on the far left that lists **Manchukuo Garrison: 8611 / 6000**. The number to the left of the slash is the number of assault points in the current garrison and the number to the right is the required assault value to avoid Soviet Activation.

Some scenarios, however, will already have Soviet activation set. Also, the Soviets will activate automatically on August 1, 1945 if they have not been activated until that time.

No other Allied units may transfer to Soviet bases before the Soviets are activated.

If the Japanese player moves a unit into the Soviet Union or Mongolia, or in any way attacks a Soviet unit or base, the Soviet Union is immediately activated.

## 8.7 COASTWATCHERS

Throughout the war in the Pacific, the Allies made valuable use of native populations and commandoes inserted behind enemy sea lanes. These brave (and often lone) individuals watched important narrows and sea channels for signs of enemy ships and aircraft, then reported them back via radio to higher headquarters.

The Allies have Coastwatchers on non-atoll land coast hexes south of the line 1, 82 to 74,82 inclusive and south of the line 74,98 to 103,98 inclusive. Also, all of Hawaii, India, Alaska, Canada, and the United States (but not Aleutian Islands) have Coastwatchers.

Japan has coastwatchers in Japan, Korea, Hainan, Formosa, Indo-China, and China.

## 8.8 INDO-CHINA JAPANESE MILITIA

Each time an Allied unit moves into a border hex inside Indo-China (the portion next to China all the way down to even with Hue), the Japanese will receive a Japanese (representing Vietnamese/Vichy French forces) militia division (up to a maximum of 4). Thus if 2 ground units move into a border hex, and then 1 unit moves from one border hex to another, 3 militia divisions will be formed. These militia divisions will be formed in Hanoi, Haiphong, Luang Prabang, and Hue in that order, and they will be formed at 1/3 strength.

## 9.0 BASES

The war in the Pacific was fought for many reasons; one of the main ones was in order to secure bases for ports and airfields. In *War in the Pacific - The Struggle Against Japan, 1941-45™* only certain specified hexes may contain a base. There can never be more than **one** base in any given hex, although a base can contain **both** a Port and an Airfield.

Bases are important for their four primary functions:

1. They can include a Port.
2. They can include an Airfield.
3. They can serve as a Supply Depot with stockpiled supplies and naval fuel.
4. They can minimize the impact of sustained combat and disease on ground troops.
5. They can contain numerous production facilities (factories, manpower centers, resource and oil centers, etc.)

Troops at bases need support troops; be sure to have enough on hand. The Base Information Screen (below) will display how many support troops are needed for the units in a base to be at maximum efficiency. If it contains an airfield, then the Aviation Support personnel on hand, and required, will be listed too. Also listed will be the amount of supplies and fuel on hand, and the supplies needed to function properly will also be listed. Being undersupplied has many ramifications; the base can't be expanded as rapidly; combat units can't be supplied as needed, and will function below their abilities; and the base will be worth less when victory points are counted.

## 9.1 BASE INFORMATION SCREEN

When the cursor is placed over a Base, a small window will display that shows an overview of the contents of the Base, including its X,Y coordinates, Victory Point value to either side, capacities, and supplies.

When the mouse is over a base, the information window for the base will list the Air Balance at the base. This is an indication of which side has air superiority in the skies over that base. If the number is positive the owner of the base has more airpower within reach of the base (with the higher the number the greater their air superiority), while if the number is negative the enemy has more airpower within reach. This is for information purposes only.



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Click on the Base symbol in the center of the hex to bring up the Base Information Screen.

This display shows:

- The name of the base (**Midway**).
- If this base is a **Main Base** for the current scenario, text to this effect will appear below the base name. For the above example, the nationality is displayed (**US Navy**).
- The HQ the base is attached to (in this case, **Central Pacific**) and its Victory Point value to both sides (**39 (3)** to the Japanese and **13 (1)** to the Allies; obviously this base is much more valuable to the Japanese than the Allies). The numbers in parenthesis are the Basic Victory Point values for each side.
- Current **Port Damage**, **Airfield Service Damage**, and **Airfield Runway Damage** ratings (**0** for each in this case)
- **Supplies** on hand (**1501**), **Supplies Required** (**281**) per day in order to

function at full efficiency, **Fuel** (**200**), and **Fuel Requested** (**1500**), which indicates how much fuel this base is asking for in order to conduct normal operations. If a slash and a second number follows either of these values, the number to the right of the slash is the number of these items produced per day at this base.

If the current Supplies and/or Fuel amounts are below the Required amount, the numbers are in red; if less than double the required amount, they are in orange. Bases

do *not* automatically need or use fuel; requirements and usage depend strictly on the fuel-guzzling units located at the base.

Also, Oil Storage and Resource Storage will display the amount of each of these items that are being stored at the base (0 in both cases).

Support:	110
Support Required:	123
Aviation Support:	15
Aviation Support Required:	0
Engineers:	12
Engineer Vehicle:	3
Artillery:	7
<b>Automatic Convoy Off</b>	
Forecast: Partly Cloudy, Temperate Zone	
Control Zone: E	
Control: Human	

Miscellaneous base information, including:

- **Support**, the amount of support currently available at this base (110).
- **Support Required**, The amount of support required in the hex for all ground units in the hex to function at full efficiency. (123).
- **Aviation Support**, The amount of aviation support required in the hex for all air units in the hex to function at full efficiency. (15),
- **Aviation Support Required**, the minimum amount of support required for any Aviation Support Units (0).
- **Engineers**, the number of construction troops available to expand the base (12).
- **Engineer Vehicle**, the number of construction vehicles used to help expand the base (3).
- **Artillery**, the number of artillery pieces available for the base's defense (7).
- **Automatic Convoy On or Off** – if production is on this will appear and allow you to put the base into the auto convoy system by toggling to On.
- **Forecast** – The weather forecast for this hex, including whether the base is in a Temperate, Malaria, or Cold Zone.
- **Control Zone** – if full map scenario it will denote the Control Zone the base is in (E, or East).
- **Control: Human or Computer** – if full map scenario it will denote whether the base is controlled by a human player or the computer.
- Facilities at the base. Midway has a **Port Capacity** of 1 (which is at its SRS of 1), and an **Airfield Capacity** of 6 (which has been expanded well past its SRS of 3). Next, to both of these numbers (if building on these areas) is a percentage of completion if the base's engineers are working to expand that

★ Port Capacity:	1 (1)
Airfield Capacity:	6 (3)
Fortifications:	3 Building 1%

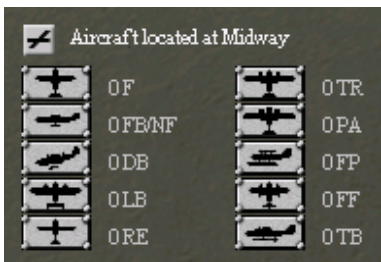
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particular facility; as long as there is room for expansion and the supplies are available, the engineers will work to expand it. Right now the engineers on Midway are only working on Fortifications...

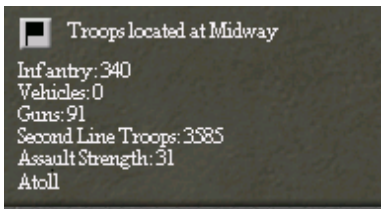
- The **Fortifications** level (here, currently 0). Next to this number is a percentage, representing the progress of the work of the engineers on base to expand the base's protection.
- If this base is located in mainland China and is occupied by the Japanese, it may be subject to Chinese Partisans (refer to **8.5 Chinese Partisans**). If it is, a **Garrison** item will appear here with two numbers separated by a slash. The number to the left of the slash is the current garrison size (Assault Value) while the number to the right is the minimum assault value worth of units that must be kept in the hex in order to avoid damage.
- Commands exist for expanding the Port, Airfield, or Fortifications. In the above example, the Port facilities may be expanded (as this option is available), but the Airfield cannot be expanded at the moment (as it is grayed out). Also, the player may order to engineers to stop building the Fortifications if they wish.



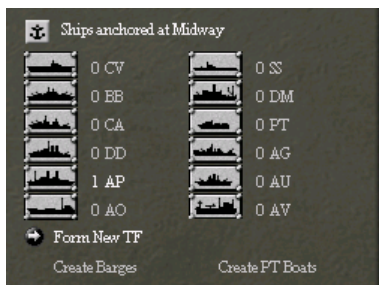
- Any and all aircraft here are listed under **Aircraft located at Midway**. The small button with the airfield icon to the left of the title may be clicked to display a list of all air units located at this base. This list of aircraft is divided by aircraft type. In this screenshot, no aircraft are located at Midway.



- Any and all ground troops here are listed under **Troops located at Midway**. Each category of ground troops is listed out in total; to view a list of each unit located at the base, click the small button with the flag icon next to the title.
- In addition, if the base is located on an atoll hex, it is noted here (for purposes of Shock Attack, discussed in Section **8.4.1 Ground Combat Missions**).
- Also, if Coastwatchers (Section **8.7**) are located in the hex, they will be listed here.



- Any and all ships here are listed under **Ships anchored at Midway**. All ships at anchor may be formed into new Task Forces by clicking on the **Form New TF** button. The small button with the anchor symbol to the left of the title may be clicked to display a list of all ships at anchor. If the port can build Barges or PT Boats, these options will be available (in this example they are not). This list of ships is divided by ship type.



## 9.2 BASE SYMBOLS

Each base is color coded to show which nationality currently controls it. Ground units must be ordered to attack an enemy base in order to take control of it (this includes beaches designated as potential bases).

### 9.2.1 Map Displays

#### 9.2.1.1 Beach

This is a coastal location that has the potential to be turned into a port and an airfield (designated by the green or red dot in the center of the hex).



#### 9.2.1.2 Base without Land, Air, or Naval Units Present

This is an operational base containing a Port and/or an Airfield (designated by the side's nationality flag). The airfield and port symbol will only display if an air unit or ship, respectively, is located at the Base.



## 9.2.1.3 Base with Air Unit Present



This represents an operational base that contains an airfield with an air unit (designated by the crossed airfield symbol). It may or may not contain a port.

## 9.2.1.4 Base with Naval Unit Present



This represents an operational base that contains an airfield with operational aircraft and a port with ships at anchor (designated by the anchor symbol).

## 9.2.1.5 Base with Ground Unit Present



This represents a ground unit (or more than one ground unit) in the same hex as the base.



## 9.2.1.6 Base Composition

A number represents the current size of each port and/or airfield at a base (maximum one of each at a base) from 0 to 10. A size of 0 represents no port or airfield, while a size of 10 represents the largest port or airfield possible on the map. The current size can be increased during a game (not beyond size 9) through the construction work of engineers at the base.

Each base on the map is rated for the Standard Potential Size (SPS) an airfield can become at the base. Base hexes on a coastal hex are also rated for the Standard Potential Size a port can become at that base. The SPS is a number from 0 to 9, with the larger numbers representing a better natural anchorage and/or better terrain for the existence of an extensive set of port or airfield facilities. These SPS ratings are fixed for all bases. When viewing an information screen for a base, you will see 5 key factors that relate to that base as follows:

- Current Size of Port
- SPS of Port (shown in parenthesis)
- Current Size of Airfield
- SPS of Airfield (shown in parenthesis)
- Fortification Level of the Base

Airfields and Ports can be built up to a current value equal to the SPS using normal construction costs. Airfields and Ports can be built up to a current value equal to 3 levels greater than their SPS (up to a maximum of 9), but at a much higher construction cost. All bases have a Fortification Level that gives protection for any friendly ground units that are in the hex and defending against an enemy attack. All friendly ground units assume the Fortification Level of the base whenever in the same hex with a base. Also, the higher the Fortification Level, the harder it is to capture a base. This level is a number from 0 to 9.

Bases also can contain stockpiles of supplies, fuel, resources and oil (resources and oil only when production is on). Fuel stockpiles are used to refuel ships, while supply stockpiles are used to maintain aircraft, resupply ground units, and replenish naval ammunition. Each day, supplies from a base's stockpile are distributed to ground units in the same hex as needed. Supply, fuel, resources, and oil stockpiles will also be moved automatically from bases overland to restock other bases or ground units that are running low on these items if the two bases (or ground unit) are linked by a valid supply path. When these items are automatically moved to another hex, some of the items are expended during the transfer (never more than 20% will be expended). Also, it is possible for supplies, resources and oil to automatically move between two adjacent bases that are separated by an ocean hexside.

Once supplies move to a ground unit, any excess supplies over and above the supplies needed for the ground unit will be shared with any other friendly ground units or base in the hex that are short on supplies.

## 9.2.1.7 Base Ownership

The flag displayed on the map shows the ownership of the base. Refer to **4.2.5 Map Icons** for a complete list.

## 9.3 PORTS

Ports are represented on the game map with an anchor symbol; rolling your mouse cursor over the symbol will provide information on that Port. Ports allow your ships to repair and resupply and their size affects the speed of loading and unloading transports.



The size of a port greatly impacts loading and unloading times. Repair times required for ships in port (or docked at the port as part of a TF) are directly related to the size of the port. However, even a current size 10 port will not repair ships as quickly as a port with repair shipyards or an off-map port, so heavily damaged ships should be sent to these ports for extensive repairs. Specific weapons systems that have been destroyed on a ship can only be repaired at a port with a current size of at least 5.

Larger ports are harder to damage (reflected as a number from 0 to 100% damage), but once damaged, take longer to repair. Ships can avoid operational system damage and improve their repair capability if they are docked at a friendly base (including friendly beach hexes, which are considered anchorages).

Ships that are docked expend no Endurance unless they are attacked. Ships at a friendly port with a current size of at least 3 may exist in the port separate of a TF in which case they will maximize their repair capability at the expense of additional vulnerability to enemy attacks (this is considered being at anchor). Ships docked or at anchor at a port with a current size of at least 3 are immune to enemy submarine attacks.

### 9.3.1 Port Damage

Port damage slows the repair and refueling of ships, as well as the loading and unloading of ships at the port. Engineer units in the hex will automatically attempt to repair any damage; the number

and experience of these troops present will affect how quickly these repairs can be completed (provided no further attacks are made). Refer to **9.4.2 Base Construction and Repair** for more details.

### 9.3.2 Ships Caught in Captured Ports

When a base is captured some ships at anchor at that base are automatically scuttled (sunk), while some may escape to the nearest friendly port. Submarines with less than 10 System damage will automatically get away.

## 9.4 AIRFIELDS

Airfields accomodate, repair, and resupply air units, and serve as a point from which to launch airstrikes.



Airfield size has many effects. It is easier to damage and destroy aircraft on the ground at smaller airfields (less dispersion). It is also more likely that planes will suffer operational losses when landing at smaller airfields.

Level bombers require an airfield equal to size 4 + ( bomb load / 6500 ) rounded down. So a B29 requires a size 7 airfield to avoid the penalties.

1. Operational losses on takeoff.
2. A reduction in their range as they cannot fly combat Missions at greater than their normal range.
3. A diminished (extended range) bomb load.

If the number of aircraft on a base is greater than the airfield size times 50 than the number of planes that launch on any given Mission is reduced by 25%. If the number of aircraft is greater than the airfield size x 100 than the number of planes launched Mission is reduced by 25% a second time.

## 9.4.1 Airfield Damage

Airfields can suffer two types of damage; runway and service (both ranging from 0 to 100 percent). It is easier to damage smaller airfields than larger airfields, but once damaged larger airfields take longer to repair. Less damage to the runway is required at smaller airfields in order to prevent aircraft from being able to take off and land than at larger airfields.

Airfield service damage in combination with the availability of aviation support determines the number of aircraft that can be repaired and may limit the number of planes that may be operational (ready, not in reserve). Airfield service damage can also impact the morale of pilots.

Runway damage can limit the air operations at a base. A strike Mission may only be launched from a base with runway damage less than  $20 + (\text{Airfield Size} * 5)$ . Patrol and CAP Missions may only be launched from bases with runway damage less than  $50 + (\text{Airfield Size} * 5)$ .

## 9.4.2 Base Construction and Repair

Engineers can be used to increase the size of airfields, ports, and fortifications at bases, and they can also be used to repair damage to airfields and ports.

Each engineering vehicle is the equivalent of five engineering squads for these purposes. Each turn, engineers at a base automatically attempt to repair any damage existing to their bases, repairing runways first, airfield service damage second and ports last.

The remaining engineers at a base that have not conducted repairs will, if the base has been given the appropriate order, attempt to increase the size of the airfield and port and increase the amount of fortifications protecting the base. This work often takes many days before a level increase is accomplished. Engineering efforts will be split between these three items unless you intentionally instruct the base to discontinue the construction efforts of a particular item.

At the beginning of every scenario, construction defaults to On for fortifications at all bases and for ports and airfields with current sizes that are below their SPS values, if the **Set All Facilities To Expand At Start** option is selected for the game. You must turn these off if you don't want to expend resources on the construction.

At the instant a base is captured from the enemy, all construction is immediately turned off.

Construction work consumes supplies, and if a base is low on supplies, construction efforts will slow accordingly.

- One supply point is consumed every twelve hours for each engineering squad (or equivalent) that is involved in construction operations. It is very important that you realize that construction consumes supplies, as it is often best to discontinue construction (especially expensive construction over the SPS) rather than use up precious supplies.

- Construction costs to increase an airfield or port by one increase as the current size of the airfield or port increases (i.e. it takes longer to go from a size 6 to size 7 than from a size 5 to a size 6).
- Once a port or airfield reaches its SPS, the cost of additional construction increases significantly, so you should consider halting construction or risk consuming large quantities of supplies for possibly little benefit. In addition to the normal costs, it takes 10 times longer than normal to increase a current size 0 airfield with a SPS of zero to a size of 1. These size zero locations were very unsuitable for airfields (such as Wau, which was built on the side of a mountain).
- Fortification construction costs are based on the SPS of the airfield and port in the base, with longer time required for bases with larger potential. Construction costs also increase as the current Fortification Level increases.

## 9.5 COMMAND ORGANIZATION OF BASES

Each base on the map is attached to a Command Organization. These organizations are responsible for managing the units under them and operate best when their units are closer to their HQ.

### **Allied commands are:**

West Coast  
North Pacific  
Central Pacific  
South Pacific  
Southwest Pacific  
Southeast Asia  
China Com  
Far East Front  
ADBA  
USFEE  
Australia Com  
New Zealand Com  
Canadian Com

### **Japanese commands are:**

Home Defense  
Kwangtung Area  
Northern Area  
Southern Area  
China Expedition  
Burma Area  
4th Fleet  
Southeast Fleet

In small map scenarios, other HQs may be designated as a Command Organization and the HQs listed may not be in the scenario. The above list of the command HQs applies only for the full map scenarios. The easiest way to know what HQs are Command HQs in a scenario is to look at the filter list on the Strategic Map.

## 10.0 SPOTTING UNITS

Detecting enemy ships in the Pacific's vast reaches was difficult, and even amid the clustered islands of some of the larger chains it was a challenge. There was a lot of water to cover in the days before planes carried radar, as well as rough terrain in Asia and other land masses to sift through. What can't be seen can't be destroyed, and reconnaissance is the eyes and ears of the wise commander.

Spotting is an important aspect of the game. If you have the "Fog of War" settings **On**, only enemy units that have been spotted will be visible on the map. Messages announcing enemy ships sunk may not appear, depending on the Detection Level (see **9.1 Detection Levels**), while messages regarding enemy ships sinking should only come up sometimes, with the probability equal to the DL times 10 percent. In addition, the Intel screen will not list sunk enemy ships for up to 60 days, nor points for damaged enemy ships.

Spotting is performed in several ways:

- Aerial reconnaissance Missions take photos of bases and ground troops, giving you intelligence on what is there.
- Bombing Missions also take photos of their combat Missions for bomb damage assessment, though the results aren't as good.
- Naval spotter planes perform Naval Searches that can spot enemy ships. Note that TF's are less likely to be spotted when naval search aircraft are more than 300 miles from their base.
- Coast Watchers were civilians or soldiers that reported on enemy naval movements. When a Coast Watcher spots an enemy unit, it's noted during the special Coast Watcher Spotting phase.
- Ground units spot enemy ground units in their hex and all adjacent hexes.

## 10.1 DETECTION LEVELS (DLs)

When the Fog of War option is **On**, every ground unit, TF, and minefield on the map **must** be spotted before it is visible for the enemy to see. If the Fog of War is **Off** then all these units are always visible on the map to the enemy player, but the units in the game will not act as if they have total knowledge of the enemy. In *War in the Pacific - The Struggle Against Japan, 1941-45™*, each of these units, as well as each base, has a **Detection Level (DL)** and a **Maximum Detection Level (MDL)**, both between 0 and 10. The DL indicates very recent intelligence about the enemy and it is the DL that has an impact on combat results. The MDL represents a general awareness of the enemy based on both recent and less current information, and it is this level that is used to determine which enemy units are placed on the map.

- An MDL of zero indicates the unit has not been spotted by the enemy and is not shown on the map (enemy bases are always shown on the map even if a base has an MDL of zero nothing but the name of the base will be known by the enemy).
- MDL's above zero indicate the unit has been spotted by the enemy. When Fog of War is **Off**, all units have a minimum MDL value of one.

- The greater the MDL, the more is likely to be known about the unit by the enemy and displayed on the screen.
- The greater the DL the easier it is to inflict damage on the enemy in combat. Often even when the DL is zero, friendly forces will take action due to an MDL value that is higher (i.e. even though an enemy TF disappears at night, expectations of enemy movements based on following the enemy closely the previous day can lead to friendly forces anticipating the enemy's next move).
- The DL of every unit changes constantly during the resolution phase based on the unit's activities and enemy actions.

## 10.1.1 Changing Detection Levels

The following items change the DL of a particular unit:

### 10.1.1.1 DL of Naval Task Force

<b>Add 1 to DL</b>	TF spotted by search aircraft (per aircraft that spots the TF – only notified of first plane each phase)
<b>Add 2 to DL</b>	TF attacked by search aircraft
<b>Add 2 to DL</b>	TF has Air Combat Mission and it reacts to an enemy TF
<b>Add 1 to DL</b>	TF has carrier(s) launching a strike Mission (per air unit that attacks/escorts from TF)
<b>Add 1 to DL</b>	Japanese TF moves into coastal hex with y coordinate > 30 and sighted by coastwatcher during daylight 75% chance of sighting, during Night 50% chance of sighting, also if daylight phase then second chance of adding 1 if DL is still 0 after first check). This also happens at the beginning of each resolution phase for each Japanese TF in a coastal hex.
<b>Add 1 to DL</b>	TF spotted by enemy sub
<b>Add 1 to DL</b>	TF attacked by enemy sub
<b>Add 1 to DL</b>	TF is a sub TF that is attacked by an enemy ship
<b>Add 1, 2, or 4 to DL</b>	TF is spotted by a recon flight (see recon flight section below)
<b>Set DL to 0</b>	All Task Forces at the very beginning of each Day and Night resolution phase

### 10.1.1.2 DL of a Base

<b>Add 1, 2, or 4 to DL</b>	Base is spotted by a recon flight (see <b>Recon Flight</b> section, below)
<b>Subtract 1 from DL</b>	End of each Day and Night Resolution Phase (essentially once every 12 hours)

## 10.1.1.3 DL of a Ground Unit

<b>Add 1 to DL</b>	Unit is involved in ground combat (attack or defense)
<b>Add 1 to DL</b>	Unit fires AA weapon in defense of base or ground unit
<b>Add 1 or 2 to DL</b>	Unit fires naval gun or dual purpose gun at enemy ships (randomly adds 1 or 2)
<b>Add 1, 2, or 4 to DL</b>	Ground unit is spotted by a recon flight (see <b>Recon Flight</b> section, below)
<b>Halve DL</b>	Unit enters a new hex by marching
<b>Set DL to 0</b>	Unit is air transported
<b>Subtract 1 from DL</b>	End of each Day and Night resolution phase (essentially once every 12 hours)
<b>Add 1 to DL</b>	Whenever in a hex with an enemy ground unit
<b>If DL=0, set DL=1</b>	Whenever in a hex adjacent to an enemy ground unit

## 10.1.1.4 DL of a Minefield

<b>Add 1 to DL</b>	Ship hits mine in minefield
<b>Add 1 to DL</b>	Minesweeper clears a path in the minefield
<b>Add 1 or more to DL</b>	Minesweeper widens a path in the minefield
<b>Add 10 to DL</b>	Enemy minefields in hex with enemy base when the base is captured by friendly forces

## 10.1.2 How Maximum Detection Levels Change

MDL's go up with the DL value, but they decline at a slower rate than the DL. Whenever an enemy DL value increases, if the MDL of the enemy is lower than the new DL, the MDL is set equal to the new DL.

Whenever an event causes a reduction in the DL (including ships with DL's already at zero) and the new DL value is zero, the MDL is reduced by one. In this way the MDL can remain a positive number long after the DL has become zero. However, MDL's for subs are cut in half (rounded down) every 12 hours.



## 10.1.3 Recon Flights

Whenever a plane flying a recon Mission reaches its target hex, or an air unit bombs a target, every enemy ground unit, TF or base (not minefield) in the hex has a possibility of having its DL increased by 1, 2 or 4.

Each enemy unit is checked separately to see if the pilot has successfully spotted the unit:

- If a recon aircraft type is flying a Recon Mission, the percentage chance that any given unit will have its DL increased is equal to the Experience of the pilot. If the DL is increased, it will increase by 4.
- If a non-recon type plane is flying a Recon Mission, the percentage chance that any given unit will have its DL increased is equal to the Experience of the pilot *divided by 2*. If the DL is increased it will increase by 2.
- If an air unit bombs any enemy target, the percentage chance that any given unit in the target hex will have its DL increased is equal to the Experience of the one pilot chosen at random to take reconnaissance photos divided by 2. If the DL is increased it will increase by 1.

## 10.1.4 Radar Detection Levels and Surface Combat

When TFs enter into Surface Combat, each ship is given an individual DL for purposes of the combat resolution only. Each ship with radar will attempt to use its radar to increase the DL of enemy ships involved in the combat by checking its radar against **each** enemy ship. Each successful radar check will increase the DL of an enemy ship by one. Ships that are on fire will have high DL values at night. (The most dangerous place to be is on a burning ship during a night surface engagement.) The higher a ship's DL during surface combat, the more likely it is to become the target of an enemy ship's weapons.

## 10.1.5 Information Given Regarding Enemy Units/Bases/Minefields

During the Orders Phase, you are able to view information about enemy ground units, Bases, Task TFs, and minefields that have a MDL greater than zero. Once detailed information is given, the amount of error in the information will decline over time if the MDL level stays high as friendly forces try to refine their estimates of the enemy.

- When the MDL of an enemy unit is equal to 1, only the location and unit type information is displayed.
- If the MDL of a unit is greater than 1, then there is a chance that approximate numbers of more detailed information will be revealed about the unit. The greater the MDL the greater the chance that detailed information will be given.
- If the MDL of a ground unit is above 1, an estimated number of troops, guns, and vehicles may be provided. If the MDL of a base is above 1, the damage to the port and airfield (average of runway and service damage) and the number of fighters, bombers and auxiliary aircraft at the airfield may be provided.
- If the MDL of a TF is above 1, then you will receive a list of ship classes of ships that have been positively identified and an estimated total number of ships in the TF. If the MDL of a minefield is above 1, the minefield will be displayed on the map. No additional information is ever given about enemy minefields.

- Production items have the DL of the base they are located at. Initially all Factory information displayed in the rollover text for enemy factories is 100% correct. This information will only be updated when the DL of a base increases. Thus, even though Tokyo could have expanded and converted many of their factories, until the first recon flight flies over Tokyo, the roll over text will show Tokyo with the production stats it had at the beginning of the scenario.

Several minefields can exist within the same hex but minefields are represented on the map by only one minefield symbol per hex.

## 11.0 POLITICAL POINTS

The Political Point system in *War in the Pacific - The Struggle Against Japan, 1941-45™* is implemented to reflect the need for the player to have flexibility when it comes to making command assignments.

Initially, all units in the game have commanders, but as the game wears on the player may find that some units would operate more efficiently under a leader that has a higher rating. For example, a ship captain with a Leadership rating of 60 and an Inspiration rating of 55 would not be as effective a commander of their vessel as an officer with a Leadership rating of 76 and an Inspiration rating of 62.

Furthermore, some units need to be reattached to different HQ's as the game moves on. A unit operating under an HQ that is thousands of miles away is not nearly as efficient in its operations as it would be were it attached to an HQ in the same hex (or a nearby one).

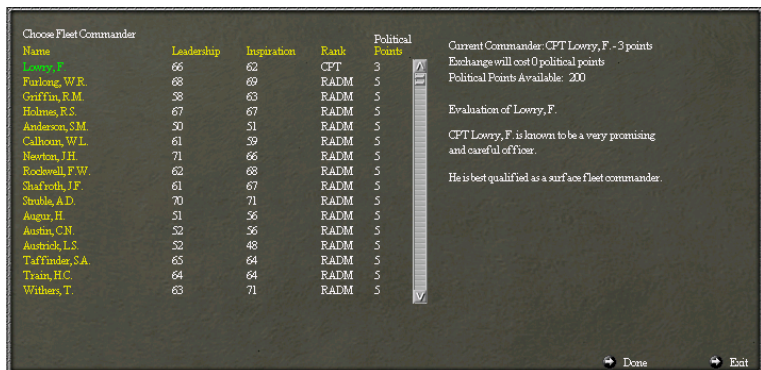
Each side (Japan and the Allies) begin with an initial pool of Political Points (based on the scenario selected) and accumulate additional Points each day. Each day, each player has the option to spend Political Points to:

- Change the HQ that a ground, air unit, or base reports to
- Replace a leader of a ground unit, air unit or task force with another leader from the leader pool.

The larger the size of the unit, the greater the Political Point expenditure required to change the HQ. Costs are as follows:

- 300 points to change a base's HQ
- 4 times the number of planes to change an air unit (e.g, a squadron of 24 planes would cost 96 Political Points to change)
- the number of weapon systems/2 + assault value + artillery/10 for ground units

## 11.1 CHANGING LEADERS



All units (ground units, squadrons, bases, ships, etc.) are assigned a leader; each one has a Political Point value from 1 to 9. To replace a leader, you must expend the Political Point value of the leader being removed, select a new leader from the appropriate leader pool, and pay 10 minus the Political Value of the new leader.

In section **7.1 Air Unit Information Screen**, we detail the leader replacement screen. This screen is similar regardless of whether or not a leader for a base, squadron, or ground unit is being replaced. Please refer to that section for details.

The player can fortunately make the decision to replace any leader with a more capable one, if they have enough Political Points to make the change.

**Both Chang Kai-Chek and Mao Tse-tueng are the only leaders in the game that may not be replaced.**

### 11.1.1 Task Force Leaders

The initial TF commander of any new TF is the ship captain of the flagship, unless the Auto Commander option is turned on when the TF is formed. If the TF is docked in a port, a higher level commander may be assigned to the TF using the Auto Commander option when it is formed, or by replacing the current TF commander. The game does not charge political points for relieving a ship captain from being the TF commander. However, points are charged for the new commander assigned. If the commander is not the captain of the flagship, normal political points are charged for replacing the commander.

## 11.1.2 British Ship Withdrawals

The computer will periodically check for British ships being recalled (for home island defense back in England). The player may or may not allow these withdrawals, but must be prepared to pay a Political Point penalty if they do not withdraw the ship. Refer to section 6.2 for more information on British Withdrawals.

## 12.0 WEATHER

Certain areas of the map are prone to specific types of weather, which can have a drastic effect on your units. There are three weather zones in the game: Malaria Zones, Cold Zones, and Temperate Zones.

- Malaria Zones (most areas of Burma, Malaya, Dutch Indies, French Indo-China, Siam, Northern Australia, New Guinea, New Britain, and the Solomon Islands). – Units will take extra fatigue in Malaria Zone hexes, although being in a friendly base can minimize the impact of the Malaria Zone.
- Cold Zones (Korea, Manchuria, Alaska, Siberia, the Aleutian Islands and Southern New Zealand). The negative effects of these zones only function 4 months of the year (winter) depending on the area; in the North they function November through February, while in the South they function from May through August. Cold Zones during the winter impact ground units the same way as Malaria Zones (above), with the following added penalties:
  - Ships moving in Cold Zones during the winter will suffer operational system damage at *double* the normal rate.
  - All base construction in Cold Zones during winter takes twice as long
  - Air units will fly 25% less aircraft on strike-type Missions.
  - Ground units unloading at an enemy base/beach or into a non-base hex with an enemy unit will suffer roughly three times the losses they would normally suffer.
- Temperate Zones (all other areas and certain major bases within otherwise Malaria Zones) – No adverse impact to units.

In addition to these weather zones, the map has been divided into 9 quadrants on the Weather Map. Each of these weather quadrants will generate a different weather forecast for all hexes in their quadrant. Offensive Missions can be aborted after all preparations have been made, but prior to take-off, due to bad weather over the air unit's base or over the intended target. A message will display if this occurs. The aircraft will **not** fly another Mission during that Air Strike phase. The weather at each base or target is determined each air phase, and is not linked to prior weather at that location. Each base is checked each air phase for its weather independent of all other bases. Each day a weather forecast is generated for each hex on the map based on the forecast in the hex's quadrant. Also the forecasted weather in the current hex is given in the menu bar at top and for a base hex on the base orders screen. This weather forecast impacts the check that is done at each base each phase to see if the base will have weather bad enough to cause a cancellation of Missions. The forecast levels from best weather to worst are clear, partly cloudy, overcast, rain (snow in cold zones in winter), and thunderstorms (blizzard in cold zones in winter).

If the Advanced Weather Effects option is switched **Off**, the weather forecasts will always be Partly Cloudy (except for turn 1 which will be clear). If it is switched on, a different weather forecast will be generated every Day: Clear, Partly Cloudy, Overcast, Rain, Thunderstorms (turn 1 is always clear). The worse the weather that Day, the greater the likelihood of an air Mission missing the target, or even of being grounded before takeoff. With advanced weather, the weather forecast in each quadrant from day to day will generally change slowly (moving only up or down one level), but sometimes it can change dramatically from one day to the next.

## 13.0 THE PRODUCTION SYSTEM

The Production System is unique to *War in the Pacific - The Struggle Against Japan, 1941-45™* as opposed to *Uncommon Valor*; by implementing it, the player opens the door to an entire new dimension to the game. Through this system, the player controls industrial production, repair, replacement, and other vital needs of their sides' war effort.

When the Production System is on, Japan can control all elements of their industry (aircraft, armaments, shipbuilding, fuel refining, supplies, etc.). The Japanese can expand and convert their factories whereas the Allies can't.

When the Production System is on, the Allies are allowed certain on map production of aircraft, supplies, and fuel along with having repair shipyards, but since most Allied material was going to Europe, and most production was off map, most Allied material arrives through the Build Rate/Replacement System (which brings items into the replacement pools on a regular basis from off-map areas) and daily automatic arrival of supplies and fuel in key rear area bases.

If a pool is over 6 months of the pool's replacement/build rate, the rate is reduced to 0 (this is for the monthly rate only, not actual production by factories on board) until the pool value drops below the 6 months level.

### 13.1 PRODUCTION BUTTONS

When a location is selected, any Production ability it has will be reflected in the bottom row of buttons on the display. For example:



Los Angeles has several buttons along the bottom of the screen (six, in fact) representing the production facilities it has.

# GAME MANUAL

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The Production Buttons that can be found are as follows:



Manpower



Heavy Industry



Resources



Oil



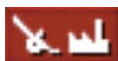
Repair Shipyard



Aircraft Factories



Engine Factories



Armament Factories



Vehicle Factories



Merchant Shipyard



Naval Shipyard

# WAR IN THE PACIFIC

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Clicking on one of the buttons will bring up a display:

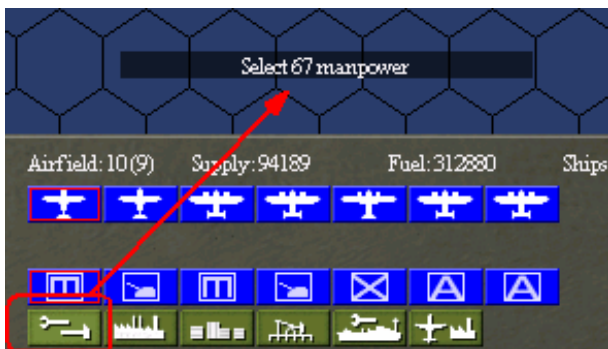


The above example is what appears when Los Angeles' Manpower button is clicked on. The information in the right column will remain the same for the current location no matter what button is clicked on; it gives the **Totals** for *all* Industry located throughout the player's controlled areas on the map. This includes total **Manpower**, total **Heavy Industry**, total **Resources**, total **Oil**, and total value of **Shipyards Repair** facilities. The value of **Aircraft Assembly** represents the player's industrial strength for building aircraft; in this example, **410** aircraft are being built per month, and there are factories researching new aircraft models that will ultimately build another **830** aircraft (the more factories that are researching, the sooner new plane types will go into active production).

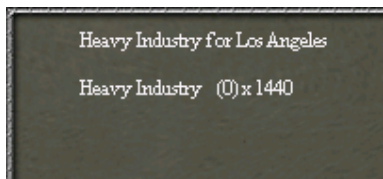
Finally, the number of Atomic Bombs the player has is listed here as well. A-Bombs are built (if the scenario is set to produce them for the Allies) starting in July of 1945 at a rate of 1 per month.

The information on the left, though, will change to reflect the current button selected. In this example, we can see that Los Angeles' Manpower level is currently **67**; the number in parenthesis indicates the number of Manpower Centers that are damaged (Manpower is not created by a factory per se, but the value is qualified representing the fact that strategic bombing a city causes casualties and will reduce the amount of manpower produced, if this 'industry' is damaged). By placing the mouse cursor over the button at the bottom of the screen, a pop-up window will appear that displays this same information:

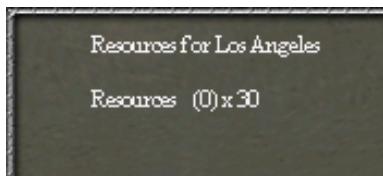
# GAME MANUAL



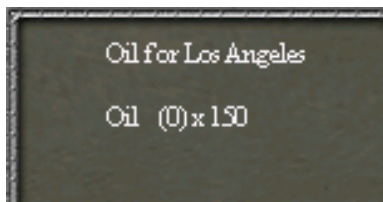
From the other buttons we can determine the following:



The Heavy Industry button displays 1440 points for Los Angeles. The number in parenthesis represents the number of damaged Heavy Industry factories.



The number of Resources in Los Angeles is 30. The number in parenthesis represents the number of damaged Resource locations.



The number of Oil Points in Los Angeles is 150. The number in parenthesis represents the number of damaged Oil locations.



Repair Shipyards for Los Angeles

Repair Shipyard (0) x 100

The Repair Shipyard level in Los Angeles is 100.

Aircraft Assembly Facilities for Los Angeles

	Repair
B-25C Mitchell -rd (0) x 75	Yes
B-25J Mitchell -rd (0) x 75	Yes
SBD Dauntless (0) x 75	Yes
A-20B Boston -rd (0) x 75	Yes
A-20G Havoc -rd (0) x 75	Yes
C-47 Dakota (0) x 75	Yes
P-51B Mustang -rd (0) x 75	Yes
P-51D Mustang -rd (0) x 75	Yes
P-39G Lightning -rd (0) x 75	Yes
P-38J Lightning -rd (0) x 75	Yes

The Aircraft Factories (Assembly Facilities) in Los Angeles are showing 75 each for ten different aircraft types. To change an aircraft type, click on it (this is not allowed for the Allied player). The player may also select whether or not to repair units of this type.

For more information, please refer to the next section.

## 13.2 INDUSTRIAL CENTERS/FACTORIES/SHIPYARDS

There are many more different resource types to keep in mind when the production system is turned on. The player will be concerned with resource and oil production, transport of these supplies to industry, and industrial production of the means needed to continue to build the weapons of war.

The player may turn any industry item off or on. This option is next to the Expand option. If off, that item will not function during the turn (it will not use anything and will not make anything). Next to the Expand option, you will have the option to Halt. Once halted, you will have the option to Restart (this will turn production back on). This helps to save resources if there is a need.

### 13.2.1 Resources, Oil, and Manpower

There are three types of 'raw materials' that the system uses to fuel building: Resources, Oil, and Manpower.

**Resources** – Resources are essentially all of the raw materials, except fuel, needed by a modern country to wage war. It is a measure of raw materials taken abstractly that equates into the production of food, clothing, ammunition, weapons, vehicles, and the like.

Resources are produced by Resource Centers. These centers are located in base hexes and each turn produce 1.25 resource points that go into storage at that location and 1 supply point that is added to the base.

**Oil** – Oil represents the raw material that is refined into many different types of fuel – gasoline for cars, aviation gas for airplanes, and the like.

Oil is produced at Oil Centers. Each day each oil center point produces 6 oil points that go into storage at that location and 1 fuel point that are added to the base.

**Manpower** – This raw material is a representation of the portion of your nationality's population that can be drafted into their armed forces. For every 10 resources expended, 5 Manpower Points are created.

Manpower is produced at Manpower Centers. For manpower to be created each day, the number of resources at a location must be at least equal to 10 times the number of Manpower Centers at that location. If this requirement is satisfied, 5 times the number of Manpower Centers are added to the manpower pool and twice this number of resources are expended. For example, if a base has 30 Manpower Centers, 300 Resources must be available for the Centers to produce. If they are, 300 Resources are expended and 150 Manpower is created.

**Resource and oil centers will not produce resources, oil, fuel or supplies if an enemy ground unit is in their hex.**

## 13.2.2 Industry

Once the raw materials are gathered, they must be processed into useful items. Resources, Oil, and Manpower are combined to build the weapons of war within each country's industrial centers. These centers are divided into many different categories, as follows.

**Heavy Industry** – This represents the large-scale production facilities that are unique to large cities. Usually these are sprawling complexes that employ thousands of workers. While they produce a lot of lifeblood to any war effort, they are prime targets for the enemy.

For heavy industry factories at a location to function each day, there must be more resources stored at that location than heavy industry, and there must be more oil stored at that location than two times the heavy industry. If these requirements are satisfied, then each heavy industry point produces a supply point and 1.33 fuel points that are added to the base, at the cost of 1 resource and 1 oil point.

**Fuel is not produced by both Heavy Industry and Oil Centers at locations that do not have at least a port size of 1.**

In addition, heavy industry points equal to the number of heavy industry factories are added to the heavy industry pool. Resources equal to the heavy industry points are expended and oil equal to two times the heavy industry points are expended.

**Aircraft Factories** – These are the factories that mass produce the fighters, bombers, and other specialty planes used in the war effort. Each day, aircraft factories that are producing aircraft that are available for production (the date is equal to or later than their availability date) will attempt to produce aircraft. The number of factories in a location represents a monthly production rate. All aircraft produced are added to their country's replacement pool.

For aircraft to be built, there must be Heavy Industry in the pool equal to 18 times the number of engines required to build each plane; when a plane is built, the appropriate number of Heavy Industry is consumed. For example, to produce a 2 engine plane, 36 Heavy Industry will be consumed, while a single engine plane consumes 18 Heavy Industry.

Each day, each location will build a number of aircraft equal to:

$$(Number\ Of\ Aircraft\ Factories + random\ number\ between\ 1\ and\ 30) / 30$$

Any fractions are rounded down.

In order for these aircraft to be added to the replacement pool, there must be an equal number of aircraft engines of the appropriate type (see Engine Factories, below) required by the aircraft built (only for Japanese aircraft, Allied aircraft do not require engines) and heavy industry points equal to the number of engines required. These engines and heavy industry from their respective pools are expended when the aircraft are produced and placed in the replacement pool.

This also displays the number of engines mounted by each aircraft for which the player may exchange existing aircraft in the format "aircraft name (engine type x number of engines)". In addition, the currently selected aircraft on the left of the pop-out has the number of engines mounted written immediately below the aircraft listing.

**Engine Factories** – These are specialty industry centers, smaller than their Aircraft Factory cousins but no less important. For engine factories at a location to function each day, the number of heavy industry points at the location must at least equal the number of Engine Factories. If this requirement is met each day, each location will build engines equal to:

$$(Number\ Of\ Engine\ Factories + a\ random\ number\ between\ 1\ and\ 30) / 30$$

Any fractions are rounded down. For each engine built, 18 heavy industry points will be expended.

**Vehicle Factories** – This represents the production facilities for vehicles, including jeeps, trucks, halftracks, and tanks. For vehicle factories at a location to produce one Vehicle Point each day, there must be 6 Heavy Industry points available in the pool.

There are no fractions of consumption. For example, if there is a 20 point Vehicle Factory, there must be 120 Heavy Industry available to produce one Vehicle Point worth of that vehicle.

If this requirement is met, the number of vehicle factories are added to the vehicle pool and this number of heavy industry points are expended from the pool. When a vehicle is required to fill out or replace a ground unit vehicle element, 1 vehicle point and 1 manpower point will be expended from their pools for each load cost of the unit (For example, a newly created Type 95 Light Tank will use up 10 vehicle points and 10 manpower points).

**Armaments Factories** – These are the facilities that manufacture the weapons (such as field guns and rifles) needed for ground units to fight. For armaments factories at a location to function each day, there must be at least an equal number of heavy industry points in the pool. If this requirement is met, the number of armaments factories are added to the armaments pool and this number of heavy industry points are expended from the pool (at a rate of 6 heavy industry points per armament point created).

When a non-vehicle weapon or squad is required to fill out or replace a ground unit element, 1 armament point and 1 manpower point will be expended from their pools for each load cost of the unit (For example, a newly created SNLF squad will use up 13 armaments points and 13

manpower points and a newly created 70mm Howitzer will use up 8 armaments points and 8 manpower points).

**Naval and Merchant Shipyards (Japanese Only)** – Each day, Naval and Merchant Shipyards create Naval and Merchant shipyard points. Each day 3 heavy industry point is expended from the pool to convert each Naval or Merchant Shipyard into a corresponding Naval or Merchant shipyard point.

Naval shipyard points are used to complete new warships that being built and Merchant shipyard points are used to complete new merchant ships being built. Each day, for a new ship's reinforcement delay to be reduced by 1 day, a number of appropriate shipyard points equal to the ship's durability must be expended from the pool.

**Repair Shipyards** – Each day, repair points are added to a location's repair pool equal to the number of shipyards at the location. These repair points may only be accumulated up to 4 times the number of repair shipyards at a location. These repair points are used to speed up the repair of ships in port, including the upgrading of ships that can occur during the game (improvements in AA weapons, etc.). The repair points in the pool must be greater than a ship's durability for the possibility of speeded up repair, and if this speed up occurs, repair points equal to the durability of the ship are expended.

### 13.2.3 Player Alterations to Production Capabilities (Japanese Only)

This represents the ability of the Japanese player to manipulate production capabilities to meet their needs. Converting or „retooling“ factories causes them damage, which is not measured as physical attack damage (such as that suffered in combat), but rather a measure of reduced efficiency as a factory is turned into something it was not originally designed for.

**Aircraft Factories** – Players may convert an aircraft factory to create a different kind of aircraft. This change will cause a reduction in the number of aircraft factories, and damage to the remaining aircraft factories. Subtract the durability of the old aircraft from the durability of the new aircraft and the larger the value the greater the reduction (negative values will still cause a reduction).

Aircraft factories that exist prior to the availability date of the aircraft will be considered to be researching the aircraft and may move up the availability date of the aircraft. Aircraft factories will upgrade on their own to produce new models of aircraft when those aircraft become available (instant upgrade with no damage to factories). However, this will not happen prior to 1942. On January 1, 1942, all factories will upgrade if there is a new aircraft to upgrade to, and then thereafter factories will upgrade as new planes become available.

For example, all A6M2 Zero factories convert to A6M5 Zeke factories immediately and at no cost, once the A6M5 is available.

**Vehicle and Armament Factories** – Players may convert vehicle factories to armament factories, and vice versa. This conversion will result in damage to the factories converted.

**Shipyards** – Players may convert Naval Shipyards to Merchant Shipyards, and Merchant Shipyards to Naval Shipyards. This conversion will result in damage to the shipyards converted.

**Engine Factories** – Players may convert an engine factory from one type to another. This conversion will result in damage to the engine factory.

**Expanding a Factory** – Any aircraft, engine, vehicle, armament, or heavy industry factory and any naval, merchant, or repair shipyard may be expanded in size by expending heavy industry, manpower, and supplies to do so. The number of new factories (which will start damaged) is equal to the current number of factories but will not exceed 100. Expanding a factory will cost 1 manpower, 1 heavy industry, and 100 supply points per new factory (expended at the moment the expansion is ordered).

The cost to expand a factory will be displayed in the text that appears when the mouse is moved over the Expand text.

**Note: Allied factories may NOT expand or convert.**

**Ship Construction** – The Japanese player may give instructions to alter the construction rates of ships under construction. Each ship under construction is defaulted to normal construction, but each ship may be ordered to halt construction or to accelerate production. Ships with their construction halted will not have their delay rates decrease (**except as per section 13.7**). Ships with accelerated production may reduce their delay by an additional day, but this accelerated production will use up **double** the shipyard points for the additional delay removed (3 times durability for 2 days delay removed).

**Special Japanese Ship Conversion** – The *Chitose* and *Chiyoda* may undergo a major conversion from a CS to a CVL. The *Ise* and *Hyuga* may undergo a major conversion to add a large contingent of floatplanes (it remains a BB type ship).

These conversions occur if the ship is at anchor in Osaka after December 31, 1942. At that time the ship enters the reinforcement pipeline. Assuming that normal, uninterrupted shipbuilding and available Naval Shipyard Points, the *Chitose* or *Chiyoda* will take 180 days to convert, while the *Ise* will take 330 days.

## 13.2.4 Aircraft Research

Aircraft not yet available with a production capacity will cause research and may move up the availability of the new aircraft type. Whenever a plane would have been produced, 1 development point is gained by the new aircraft type. For every 100 development points the availability of the aircraft type will be moved up one month.

## 13.2.5 Capturing Industry

When specialty (i.e., non-Heavy Industry) Industry hexes are captured by the enemy, the computer make checks to see if they damage any facilities before capture. If engineers are present in the hex, the chance and severity of damage is increased with the number of engineers present. This damage impacts Resources, Oil, and other factory types. Otherwise:

- Captured Manpower Centers are divided by 10. For example, if you capture an 30 point enemy Manpower Center, it will be worth 3 to you.
- Captured Japanese Naval or Merchant Shipyards by the Allies convert to Repair Shipyards.
- Captured Aircraft Factories convert to Vehicle Factories.

- Captured Heavy Industry is halved *each* time it is captured. For example, a 50 point Heavy Industry that is captured is reduced to 25; if it is captured *again*, it is reduced by half again to 12 (fractions are rounded down).

## 13.3 SHIP UPGRADES

Ships that upgrade are given a new class and a small level of damage is added to the ship's system damage. Ship upgrades may only take place in ports with repair shipyards (or off map in smaller scenarios).

The bigger the ship, the less the system damage will be; the range of system damage incurred is generally 2-15%. Off map ships will fully repair this damage before they re-enter the map.

## 13.4 SHIP REPAIRS

When the production system is turned on, repairs can be made faster at ports with repair shipyards. Each turn the port accumulates shipyard points equal to the repair shipyards. For example, if you have 100 Repair Shipyards at Pearl Harbor, you get 100 Repair Points at Pearl Harbor.

Unused points may be accumulated up to 4 times the number of shipyards. If the shipyards unused are greater than the durability of the ship being repaired, the repair rate is doubled and repair points equal to the durability of the ship are expended. A sub, PT, or DD tender may help two ships per turn repair (they give a bonus equal to increasing the port size by 2).

A repair ship may help four ships per turn repair (bonus equal to increasing the port size by 1). A Fleet HQ in the port gives a bonus equal to increasing the port by the support in the HQ divided by 50 (generally 2 or 3). Ships at sea can **never** repair system damage below 50 and ships in a docked TF can **never** repair system damage below 5. A ship has to be individually (i.e. apart from a TF) docked at a base in order to repair its system damage down below 5.

Off map repair time is equal to:

***System Damage \* (2 + ( ( rnd (20) + ship durability) / 20 ) ) + round trip time***

In small scenarios (i.e. not full map), the AI will send damaged ships off map.

## 13.5 GROUND UNITS (JAPANESE ONLY)

When production is turned on, all ground units arriving as reinforcements must be flushed out with new elements from the production system. If the production system cannot produce enough weapons to fill out the entire TOE of a new ground unit, then the unit will be placed on the map at 25% of its TOE, and these weapons will not be charged against the Production System (this represents emergency mobilization).

## 13.6 JAPANESE SCRAPPING OF EXCESS AIRCRAFT

The Japanese scrap excess planes in their pool when production is turned on in a scenario. Add the max ready values of all air units using a particular plane (include in this any reinforcement groups not yet on the map but due to come in at some point). If the number of planes of that type in the pool is greater than 99, then the computer scraps all planes in excess of **10 \* (max ready value of all air groups using the plane)**, but always leave *at least* 99 in the pool.

When the planes are scrapped, they are removed from the pool and 1 resource for each engine on the plane is added to Osaka for each plane scrapped.

For example: 2 Ki-27 units each with 36 max ready exist in the game and no new Ki-27 units are due in. Any planes in the pool greater than 720 (72\*10) will be scrapped. If 800 planes were in the pool, then the pool is reset to 720 and 80 resources are added to Osaka (single engine plane provides 1 resource per plane).

## 13.7 JAPANESE SHIPS

All ships remove 1 day of delay when the delay is greater than:

### **10 \* Ship Durability**

This automatic delay removal does not cost Naval or Merchant shipyard points. Those ships set for normal construction with a delay less than **10 \* Ship Durability** require Naval or Merchant shipyard points equal to their durability to remove 1 delay (each day). If set to accelerated production, the ship will remove 2 days of delay (each day) for a cost equal to 3 times its durability. A ship that has a delay **over 10 \* Ship Durability** and less than **30 \* Ship Durability** may be accelerated. It will remove 1 additional delay (other than the free 1 delay removal) each day for a cost of appropriate shipyard points equal to the ship's durability.

## 14.0 LOGISTICS

If logistics are the sinews of modern warfare, then those sinews were stretched tightly in the Pacific. Supplies were usually in abundance in Tokyo and Pearl Harbor, but shipping them to the theater they were needed in was no easy task, especially for Japan. Even when they arrived, quartermasters were faced with distributing supplies in perhaps the most underdeveloped region on Earth at the time, with few good ports and no real roads or airfields. Yet managing logistics is the key to victory in *War in the Pacific - The Struggle Against Japan, 1941-45™*.

Supply comes in two categories:

1. Basic supplies, which are used to feed, clothe, arm, repair, and build land, sea, and air units.
2. Fuel, which is used only for naval units.

Each unit (Air, Ground, and Naval) has a *minimum requirement of supplies* which is constantly calculated and updated by the computer. Supply needs are an estimate of future needs based on recent supply usage. Thus, if aircraft at a base are flying a lot of Missions, or ground units are engaging in combat at a base, or ships are replenishing ammo from a base, the supply needs of the base will increase. As combat activity declines, the supply needs value will also decline, although units always require a basic subsistence level of supplies. While supplies are actually consumed as used, without adequate supplies on hand to meet the expected needs, units instinctively begin to curtail operations in order to stretch out the available supplies.

Units that are undersupplied don't perform at their maximum efficiency, and ships that are underfueled are only able to move one hex every 12 hours. Units with no supplies operate at about 25% of their peak efficiency.

Supplies are stockpiled at bases. Supplies are created via the production system and can also come into the game at bases that are assigned a daily allotment. From there they can be distributed to satellite bases in a variety of ways already described; via air transport, TFs with Transport Missions, submarines with transport Missions, and overland. A base may transfer supplies, oil, and resources to an adjacent base regardless of the terrain the separates the two hexes (allows inland sea movement of resources and oil).

Support troops are required for a base to operate efficiently. Without engineers, bases can't be created, expanded, or repaired. Without aviation support, aircraft can't remain operational, and without support troops, units at the base will not recover from the fatigue they suffer from combat and malaria.

Support:	110
Support Required:	123
Aviation Support:	15
Aviation Support Required:	0
Engineers:	12
Engineer Vehicle:	3
Artillery:	7
<b>Automatic Convoy Off</b>	
Forecast: Partly Cloudy, Temperate Zone	
Control Zone: E	
Control: Human	



## 14.1 SUPPLY OPERATIONS

Twice a day, during the Supply Needs Calculation and Overland Supply Movement Phases, the computer calculates the supply needs of all the units and bases in the game. It then looks for units and bases that need supplies, and which are near bases ((or ground units in the same hex) that have an abundance of supplies. Supplies are then automatically transported overland to the needy units and bases if there is a clear supply path on the ground. Many supply operations occur during the daily Supply Operations Phase.

Ships are limited to loading 10% of the supplies at a base if the base either has less than 30,000 supplies present or its current supply level is less than four times its supply needs.

The Supply Operations Sequence is broken down as follows:

1. Expend required supply points to maintain ground units and aircraft formations.
2. Repair aircraft and determine effect of available Aviation Support on the readiness of aircraft formations. Add pilots to air units that need them.
3. Adjust Pilot Morale.
4. Adjust fatigue of ground units.
5. Units not at bases construct fortifications.
6. Add replacement aircraft to air formations.
7. Create ground unit replacement sub-units.
8. Perform Aircraft Unit Upgrades.
9. Perform Ground Unit weapon Upgrades.

## 14.2 NAVAL SUPPLY

Ships fire one round per weapon per round of combat. Once ammunition is expended, there are two ways in which ships can replenish their ammunition.

If a TF disbands in a port, the port expends supplies to replenish the ammunition on each ship. If a TF refuels in port, the port expends supplies to replenish the ammunition on each ship. The supplies expended are based on the amount of ammo needed to replenish the ship and the type of ammo needed.

### 14.2.1 Depots and Tenders

Tenders must be located in a hex with a port of at least size 1 in order to perform their duties.

#### Mine Depots/Tenders (MLE)

SS, ML, and DM ships may only load mines when in the hex with a size 9 or 10 port with sufficient supplies or in a hex with an MLE ship and a base with sufficient supplies. MLE must have no fire or float damage and less than 50% system damage, and have Op points remaining for the function to be allowed.

#### Destroyer Depots/Tenders (AD)

Non-PT boat surface ships may only reload torpedoes when in the hex with a size 8, 9, or 10 port with sufficient supplies or in a hex with an AD ship and a base with sufficient supplies. Destroyers

are also repaired faster when in a hex with an AD ship and a base. ADs must have no fire or float damage and less than 50% system damage, and have op points remaining for the function to be allowed.

## **PT Boat Depots/Tenders (AGP)**

PT boats may only reload torpedoes when in the hex with a size 3 or larger port with at least 20,000 supplies or in a hex with an AGP ship and a base with sufficient supplies. PT boats are also repaired faster when in a hex with an AGP ship and a base. AGPs must have no fire or float damage and less than 50% system damage, and have op points remaining for the function to be allowed.

## **Sub Depots/Tenders (AS)**

Subs may only reload torpedoes when in the hex with a size 8, 9, or 10 port with sufficient supplies or in a hex with an AS ship and a base with sufficient supplies. Subs are also repaired faster when in a hex with an AS ship and a base. ASs must have no fire or float damage and less than 50% system damage, and have op points remaining for the function to be allowed.

## **Ammunition (AE) Ships**

In 1945 or later, a ship may replenish non-torpedo, non-mine ammo that has an effect less than 60 (mostly AA ammunition of 5" size or smaller) if at sea and in the same hex with an AE that is in a replenishment TF. Before 1945 the AE ship will only function if in the same hex as a friendly base with a port value of at least 1. AEs must have no fire or float damage and less than 50% system damage, and have op points remaining for the function to be allowed. AE's must have supplies on board to perform these functions, and these supplies are expended as they replenish the friendly ships.

## **Repair (AR) Ships**

Ships in a hex with an AR ship and a base will repair faster. ARs must have no fire or float damage and less than 50% system damage, and have op points remaining for the function to be allowed.

## **Amphibious Force Command (AGC) Ships**

These add a bonus that minimizes damage to units when they are unloading over a beach at an enemy occupied hex (amphibious assault).

## Seaplane Tenders (AVD and AV) and Scout Cruisers (CS) Ships

AVD, AV and CS ships will add Aviation Support for float planes, float fighters, and patrol aircraft (seaplanes) that are based at a base in their hex. This support is not given if the ship's system damage is greater than 50 or if the ship has any floatation or fire damage. AVD/AV/CS support is listed as a "+" to the normal support value of a base, so that 30 aviation support and 18 AVD/AV/CS support will appear as 30 + 18. This support does not benefit normal aircraft or the level of aviation support these aircraft need. These ships add aviation support equal to the following:

- Japanese AVD/AV/CS ships: their capacity plus 10, minus the number of planes on board
- Allied AVD/AV/CS ships with durability greater than 12 : their capacity plus 18, minus the number of planes on board
- Allied AVD/AV/CS ships with durability less than or equal to 12 : their capacity plus 12, minus the number of planes on board

## 14.3 GROUND UNIT SUPPLY

When tracing a supply path for movement of ground units or overland movement of supplies, a supply value is generated. This is determined by tracing a path from the base transferring supplies or the ground unit moving to the destination. This supply value determines whether the move is legal, and how much of the supplies are used up during the move. The supply value of a move is calculated by subtracting the following from 100 (900 if a ground unit move):

- 2 for each hex moved along a rail/highway
- 5 for each hex moved along a road
- 25 for each hex moved along a trail
- 50 for each hex moved cross country

To order a ground unit move to a specific hex, the path of the move must generate a positive supply value to constitute a valid supply path. Ground units will move along a path that provides the best possible supply route from their current hex to their destination. For automatic supply movement, the supply value must be greater than 0. The greater the supply value, the more often supplies will be moved, and the less supplies will be expended during the move.

Example: A unit moving from hex 54,87 (Lae) to 54,89 generates a supply value of 825 (1 hex of trail movement and 1 cross-country,  $900-25-50=825$ ). Since the value is positive, it is a valid move. Note that if there were enemy units in hex 54,87, a movement plot to 54,89 would not be allowed as it is not a friendly base. If supplies were being automatically moved from 54,87 to 54,89, it would return a supply value of 25 ( $100-25-50$ ) which would allow some supplies to transfer. However this is a low value so supplies would not be transferred every day, and many supplies would be expended during the transfer.

## 14.4 SUPPLY/FATIGUE EFFECTS ON LAND UNITS

Defensive and offensive fire of land units low on supplies will be reduced. Once a unit has less supplies than its reported supply need, it stands a chance of having its combat fire reduced. Once totally out of supplies, it will eventually have its fire greatly reduced. Ground units will gain fatigue every turn. More fatigue will be suffered by troops that are marching or in combat. Each turn, units will attempt to reduce their accumulated fatigue. The following items impact the amount of fatigue reduced:

1. The amount of support available in the hex versus the support required by the units in the hex. Units that are in hexes that have support available that equal or exceed the support required for that hex will reduce the greatest amount of fatigue. The less support available, the less fatigue is reduced. If a land unit has sufficient innate support, its Support value is shown in white; if it does not have enough, but it is in a friendly base hex that has enough total support located in hex, it is shown in green. If neither unit nor hex has enough, it is shown in red.
2. Whether the unit is in a temperate or non-winter cold zone. Units in these hexes will reduce the most fatigue.
3. Whether the unit is occupying a base, and the size of the base. Units occupying a base will reduce more fatigue. The larger the base (airfield size plus port size) the greater the fatigue reduction.
4. The supply level of the unit. A unit that has supplies equal to or greater than its supply need will reduce more fatigue. The less supplies the unit has below its needs, the less the fatigue reduction.

When a unit's fatigue level gets high, elements of the unit will slowly become disabled. When a unit has more disabled elements than non-disabled, it will begin to have elements destroyed instead of just disabled due to high fatigue.

Ground units with a Fatigue of less than 50 will gain 1 extra Fatigue per turn if at sea on a transport. If 50 Fatigue is reached in this manner, their Fatigue will not increase beyond this level.

## 14.5 AIR UNIT SUPPLY

Aircraft in an air unit can be in one of three states:

- Ready
- Being Repaired
- In Reserve

Ready aircraft are those aircraft that are capable of flying during the next day. Aircraft being repaired and in reserve are **not** available to participate in Missions. Aircraft require aviation support and supplies to remain ready, or to be repaired or activated from reserve. An aircraft that is ready may become damaged due to combat or operational losses from flying (even during Transfer Missions).

Furthermore:

- One Aviation Support point is required for each aircraft operating at an airbase for those aircraft to function at maximum efficiency (exception: a base never requires more than 250 aviation support).
- A base **must** have supplies equal to its stated supply needs for the aircraft operating at the airfield to function at maximum efficiency (exception: level bombers require their base to have supplies equal to double the supply need in order for the bombers to operate at max efficiency).
- Planes other than level bombers flying an offensive Mission and planes flying an Escort Mission expend one supply point per plane per Mission.
- Level Bombers flying an offensive Mission expend supplies equal to their Maximum Load divided by 1000 per Mission.
- All planes flying other Mission types (search, CAP) expend 1/3 of a supply point per plane per Mission. These supply points must be available for expenditure or the planes will not fly.

All aircraft groups require that their base contain supplies at least equal to the supply needs for the base, or:

- The group will not fly more than 75% of the ready aircraft in the group on an Offensive or Escort Mission.
- Level Bomber squadrons require that their base contain supplies at least double the supply needs for the base, or the Level Bomber group will not fly more than 75% of the ready aircraft in the group on an Offensive Mission.
- All groups attempting to fly any other Mission type (Naval Search, CAP, etc.) require that their base contain supplies at least one half (50%) the supply needs for the base, or the group will not fly more than 75% of the ready aircraft in the group.

During the Supply Operations Phase each day there is a chance that aircraft will change their state. An aircraft that is ready may become damaged because the base lacks sufficient aviation support and supplies. The chance of a plane being repaired is based on the damage to its airfield's service facility, the amount of aviation support available and the supplies available at the base. Planes may also be placed in reserve due to insufficient supplies and/or aviation support. A unit can never have more than its maximum ready aircraft ready at one time, with any remaining planes being placed in reserve. Once the number of ready planes falls below the unit's maximum, the unit will attempt to move reserve aircraft to ready, but this will be based on the aviation support and supplies available at the base.

Aircraft on ships are assumed to have sufficient aviation support and supplies. However:

- Planes on a ship **may not fly** if the ship's *combined* System Damage and Floatation Damage are greater than 50. They may transfer off the ship if docked or at anchor at a base with an airfield with a size of at least 1 (they are assumed to have been manually unloaded and taken to the airfield).
- If the number of aircraft on board exceeds 115% of the ship's capacity, only Transfer Missions can be flown. Planes won't make an emergency landing (refer to **7.2.2.16 Emergency Landings**) on another Carrier in such a way as to cause it to exceed 110% of the carriers aircraft capacity.
- A ship may **never** have more aircraft on board than *twice* its capacity.

## 14.6 AUTOMATIC CONVOYS

By using the Automatic Convoys system, players can select certain ship types (AK's, TK's, and certain escort supply ships) to be placed into a computer controlled system that will attempt to keep bases supplied with needed supplies and fuel, and for the Japanese, will attempt to pick up resources and oil to return them to Japan for production. Ships are put into this system by the player at Osaka, San Francisco, or Karachi, and bases must be specifically set to be included in the system to receive supplies/fuel or have resources picked up (do this by pressing on the Auto Convoy System button at the top of the main game screen; bases may also be added into the Auto Convoy system from the Base orders screen).

Each turn the computer will create a TF using the ships in the system if the supply at a base in the system is less than 2 times the supply needs of the base. If there are sufficient ships, the computer will create up to 2 TF's for each player per turn (2 in Osaka and 1 each in San Francisco and Karachi).

For the Japanese only, during a turn the computer does not create a TF to resupply a base, the computer may create up to one TF to pick up resources if there are raw materials or oil stockpiles at a base that is in the system (it may skip one or two turns if it is missing sufficient quantities of both TK's and AK's in the system at Osaka.).

**Once an Automatic Supply TF's cargo has been unloaded, a Japanese TF that has been sent to resupply a base will attempt to pick up raw materials/oil, either at its current location or another base that is in the system, and return these items to Osaka.**

In addition to providing supply, a TF formed to resupply a base will include available TK ships to carry fuel if the computer deems the base also requires fuel.

No more than one Automatic Supply TF will be in transit to a particular base at any given time. Currently, bases with x coordinates less than 50 and Y coordinates less than 90 are supplied from Karachi and all other bases are supplied from San Francisco.

Only tankers (TK's), cargo ships (AK's), and some escorts types may be placed into the system. Ships may be transferred into or out of Automatic Supply task forces. If transferred out, the ship is removed from the system. Ships transferred in are added to the system if of the proper type.

A TF created by the Automatic Supply system will have this indicated on their TF orders screen and most functionality normally accessible on this screen is not available. The destination of the TF is displayed.

An Auto Supply TF can be changed to Human Control by clicking on the Automatic Supply Convoy text on the screen. A Yes/No dialogue box to confirm this will be displayed, as once they are switched to human control the ships will be taken out of the system and there is no way to switch the TF back to be in the system. Press **Y** for Yes or **N** for No.

This system is an excellent way to keep rear area bases in supply, and for the Japanese to pick up raw materials and oil from rear areas and return them to Japan.

Bases with a decent overland supply link (with a Supply Line value over 75) to Osaka, Karachi, or the United States will **not** be displayed in the Automatic Convoy system base list (they are already getting things shipped by land). These bases will also have the option to put the base into the system grayed out on their Base Orders screen.

## 14.7 CAPTURING BASE RESOURCES

A base that generates a daily allotment of supplies, fuel, oil and/or resources will not generate these items if the nationality of the base is not part of the side that controls the base.

Example: Chungking is nationality Chinese and has a daily allotment of supplies. If Chungking is controlled by the Japanese player, no daily supplies will be generated. If the Allies recapture Chungking, daily supplies will be generated. Players using the editor should be aware that if a scenario is created with a base having a nationality that does not belong to the controlling player, the daily allotments will not arrive unless the base is captured by the other side.

## 14.8 SPOILAGE

Spoilage (or waste) to fuel and supplies at a base may occur, based on the size of the base. To determine this possibility, first add the port and airfield sizes. Any base with combined port and airfield of 10 or more has **no** spoilage. Otherwise:

- Fuel over  $1000 + ((\text{port} + \text{airfield size}) * (\text{port} + \text{airfield size}) * 1000)$  suffers spoilage.
- Supplies over  $5000 + ((\text{port} + \text{airfield size}) * (\text{port} + \text{airfield size}) * 3000)$  suffers spoilage.

## 14.9 BURMA ROAD

For the Allies, if a rail/highway/road/trail path free of Japanese units between Yunan and Ledo or between Yunan and Rangoon can be traced, then each day, 500 supply points per turn are added to Yunan.

## 15.0 REINFORCEMENTS AND REPLACEMENTS

Reinforcements are ships, air units and ground units that enter the game after a scenario has begun. These units appear in locations displayed on the various reinforcement screens found off of the Intelligence Screen. Refer to section **15.6 Arrivals** for what happens if the arrival location is enemy controlled. Ground and air units that have taken losses may also receive replacements. Reinforcements and replacements are noted in the appropriate menu off of the Intelligence Screens. Some ground units, air units and ships may upgrade their equipment during the course of a game.

Disbanding/withdrawing units come back as if they were a normal reinforcement as do certain destroyed air and ground units as detailed in this section. When production is on, all Japanese units coming into the game use planes from the Production Pool.

### 15.1 NAVAL UNITS

At the beginning of each scenario, ships are given a "standard availability date" which is the date on which the ship will enter the game. You can randomize the availability dates somewhat through the use of the Reinforcement realism option. Ships that have been sent off map (or are being converted) will also be given an availability date at the time they are sent home (these ships not only repair damage but may upgrade their ship class and be given new weapons systems, AA guns, radar, etc.). Once ships have reached their availability date, they become available and enter the map at their entry location.

#### 15.1.1 Automatic Ship Replacements

There are several instances in which replacement ships will be provided as reinforcements if a ship is sunk during the game. Replacement ships are generated if:

- An American CV is sunk prior to 1944 will be replaced by an *Essex*-class CV.
- An American or Australian CA that is sunk prior to 1944 will be replaced by a *Baltimore*-class CA or a *Cleveland*-class CL. The replacement class is chosen at random.
- A Minesweeper of any navy that is sunk will be replaced by a similar minesweeper.

Whenever a replacement ship is created, it will be placed in the reinforcement list and given an arrival time of around 550 days from the date the original ship was sunk.

### 15.2 AIR UNITS

Air units will automatically gain replacements under certain circumstances if aircraft are available in the replacement pool and the air unit has been set to Accept Replacements. To get replacement aircraft to flow automatically into an air unit, there must be planes in the pool and one of the following cases must be true (the first true will take effect):



- The air unit is located at a base and the base has over 20000 supplies. Supplies will be expended at the base and the unit will receive damaged planes from the pool (they may repair before the next orders phase during the repair phase).
- The air unit is located at a base and the HQ that the base is assigned to is within transfer range of the air unit's aircraft type and the HQ is located at a base that has over 20000 supplies. Supplies will be expended at the HQ's base and the unit will receive damaged planes from the pool.
- The air unit is located on a ship in the same hex as a base (TF or at anchor) and the base has over 20000 supplies. Supplies will be expended at the base and the unit will receive damaged planes from the pool.
- The air unit is located on a ship in the same hex as a base and the HQ that the base is assigned to is within transfer range of the air unit's aircraft type and the HQ is located at a base that has over 20000 supplies. Supplies will be expended at the HQ's base and the unit will receive damaged planes from the pool.

If none of these conditions apply, land based air units may automatically have a sub unit created for it at the base containing the HQ that the air unit's base is assigned to. The base with the HQ must have supplies that are at least equal to twice the base's supply needs plus the supplies that will be expended in creating the sub unit, and there must be planes in the pool equal to:

$$10 + (\text{plane build rate} / 2)$$

If these conditions are met, a sub unit of damaged planes will be placed at the HQ's location and supplies will be expended from the base. Note Japanese build rates are usually 0 when production is on. Another subgroup will not be formed for the air unit until at least 7 days have elapsed.

In scenarios with production on all new air units (including reinforcements, disbanded, and withdrawn) must take from the replacement pool to fill out the air unit when it arrives.

Aircraft units may receive replacements during the Supply Operations Phase. Air units on airfields only check for replacements 2 out of every 3 days, while air units on ships check for replacements every day. Any unit, including sub-units, with less aircraft (Total Ready, Repairing, and Reserve) than its maximum ready aircraft level is eligible for replacements (the main unit's maximum ready aircraft level is checked versus the total number of aircraft from the main unit and sub-units). Air units with more losses will receive priority for replacements. Air groups on carriers with more than 50% system or flood damage cannot receive replacements.

Replacements are taken from the replacement pool if the appropriate planes are available (fighter aircraft for fighter squadrons, carrier-capable aircraft for carriers, etc.). To view the number of planes currently in the replacement pool, access the Aircraft Replacement Screen from the Intel Screen. Also, the expected average rate of monthly replacements (and/or production) by plane model will give you an idea of how quickly losses can be made up.

The Aircraft replacement screen lists the number of available planes and the number of planes used so far during the scenario. The number used can become negative if more planes have been returned from upgrading air units than have been used as replacements.

Non-Dutch air units that are destroyed on the ground when a base is captured will return to the game as a reinforcement after 360 days. If production is on for the Japanese player, Japanese units will use planes from the replacement pool to try to fill out the units when they reenter the

game. Allied air units that are sunk while on a ship and that are not part of that ship's normal air group complement will return to the game as a reinforcement after 120 days.

## 15.2.1 Carrier Aircraft and Off-map Movement

If a Carrier is withdrawn off-map during a partial map scenario, the aircraft assigned to it are placed in the replacement pool, but the pilots remain with the carrier air group. If a carrier returns to the war zone, it will attempt to replace its aircraft from the replacement pool.

## 15.2.2 Pilot Replacements

Pilot Pool/Experience and Replacement Rate			
Nationality	Currently in Pool	Experience	Replacement
US Navy	202	60	60
US Army	807	55	200
US Marines	202	55	60
Australian	401	55	40
New Zealand	100	55	10
British	201	55	30
French	10	50	4
Dutch	10	50	4
Chinese	100	45	10
Soviet	400	50	20
Indian	100	50	20
Commonwealth	100	45	10
Philippines	5	45	5
Communist China	0	0	0
Canada	100	55	10

Air units may receive pilot replacements during the Supply Operations phase. Units that have more ready aircraft than pilots will have new pilots assigned to the unit from the pilot replacement pool. The number of trained pilots, and the base experience levels of these replacement pilots are listed on the Pilot Replacement screen. However, if replacement pilots are needed and none are available, poorly trained replacement pilots will be provided to the air groups needing them. These poorly trained replacement pilots will enter the game with roughly  $\frac{1}{2}$  of the experience of that nationality's trained replacement pilots.

## 15.2.3 Average Pilot Experience by Nationality

When new units arrive as reinforcements, they will generally arrive with pilots that have experience levels based on their nationality and the year of arrival. This is not always true as some air groups have been given unusual experience ratings or contain a high proportion of "historical" pilots that were of extraordinary skill. Normal units will enter with pilot experience set near to the levels in the following table.

Year	1941	1942	1943	1944	1945	1946
Japanese Army	65	60	55	50	45	40
Japanese Navy	80	75	60	45	40	40
US Navy	70	70	75	75	75	75
US Army	55	55	60	65	70	70
US Marine Corps	55	60	60	65	65	65
Australia	55	60	60	65	65	65
New Zealand	55	55	60	60	65	65
Great Britain	55	60	60	65	70	70
France	55	60	60	65	65	65
Dutch	55	60	60	65	65	65
China	45	45	45	50	50	55
Soviet Union	55	60	60	65	75	75
India	50	55	60	60	65	65
Commonwealth	50	55	60	60	65	65
Philippines	50	55	60	60	65	65
Canada	55	60	60	65	70	70

## 15.2.4 Aircraft Upgrades

Many of the aircraft models in the game were improved as the war went on. The engineers at home toiled to perfect their designs, creating a constant flow of newer, more powerful models. In *War in the Pacific - The Struggle Against Japan, 1941-45™*, as these models become available their numbers will steadily grow in the player's Replacement Pool. Every day, during the Supply Operations phase, air units will check for possible automatic upgrading if the unit is set to upgrade. During the orders phase, an air group that meets the needed requirements will be able to use the Upgrade Now option to accomplish an immediate upgrade.

There must be a sufficient number of the new model planes in the Replacement Pool to equal the maximum ready aircraft level for the unit in order for the upgrade to occur. In addition, one of the four requirements listed in section 15.2 must be true. If these conditions are met, the unit's current aircraft are placed in the player's Replacement Pool, and the unit has its number of damaged aircraft set equal to the maximum ready aircraft level for the unit.

Dutch aircraft may not upgrade until July 1, 1942. British aircraft may not upgrade until May 1, 1942.

## 15.3 GROUND UNITS

Bases that have supplies that exceed double their supply requirements may use the excess over double needs to provide replacements (as long as the ground unit has the Accept Replacements selection made on its Ground Unit Information screen). Units are within supply range of the base if the supply range is 50 or greater from a base where you trace a path starting with 100 and subtracting for each hex the path moves through as follows:

- Rail/Highway: **2**
- Road: **5**
- Trail: **25**
- Cross Country: **50**

If needed items are in the pool (or there are armament points ready to build them if the forces are Japanese and the Production system for Japan is turned on), then they may be added to the unit. The unit should gain at least 1 of each of the needed items (need is if TOE value is greater than the disabled+ready value of the unit and any sub units on the map). The unit may receive more than 1 of each item needed, but must pass a series of checks to do this. Each base that the unit is within supply range of may send replacements, so there is an advantage of being near lots of well stocked bases. Sub units may never receive replacements unless it is an engineer type unit under computer control. If the sub unit is an engineer type unit, it may take replacements for Aviation Support, Support, and Engineers (if the sub unit has any of the specific item). The desired TOE it tries to build to is up to 90 Aviation Support, 90 Support, and/or 48 Engineers.

Except for most HQ units and some Chinese units (see section **15.3.2**), ground units are not replaced when destroyed. Most HQ units do return to the game as a reinforcement if they are destroyed.

### 15.3.1 Ground Unit Weapon Upgrades

Ground units may have their individual weapons elements (i.e. infantry squads, artillery, etc.) upgraded to newer elements as they become available if they are available in the replacement pool or can be produced by the Japanese production system. An example of this is an Allied unit with a 37mm AT gun will attempt to upgrade it to a 57mm AT gun when there are enough in the replacement pool. Another example is the basic USA Rifle Squad will upgrade beginning in July 1942 (gaining some additional firepower). In fact, the USA Rifle Squad will upgrade two additional times during the war.

As with replacements, the unit must have access to a nearby base with supplies in order to receive an upgrade. When upgrades are performed, they remove all of the elements of a single weapon's element (i.e. all 37mm AT guns or all USA Rifle Squads) in a ground unit, placing these back in the replacement pool (both disabled and ready squads). An equal number of new elements are placed in the unit in the same condition as the elements removed (i.e. 6 ready and 4 disabled 37mm AT guns will be replaced with 6 ready and 4 disabled 57mm AT guns, while 10 37mm AT guns will be added to the replacement pool).

When production is turned on for the Japanese player, any infantry and/or engineer squads that are upgraded will not be returned to the pool. Instead a number of points equal to the load costs of the units replaced will be added to the manpower pool.

Upgrades occur automatically and cannot be stopped from happening as long as sufficient new items are in the pool and the unit has access to sufficient supplies.

## 15.3.2 Special Chinese Replacements

Chinese infantry units that are totally destroyed are recreated. When destroyed, the unit is set to return to Chungking 30 days later at 1/3 of its TO&E strength. These replacement units do not use up any units from the replacement pool. They represent the almost unlimited ability of China to replace infantry units if needed.

## 15.4 BASE FORCE REPLACEMENTS

Base Forces also receive replacements just as any ground unit does, but their expected full strength level for the computer player can change during the game. Every friendly airfield with at least one Base Force unit at the airfield will pick one Base Force to be its primary Base Force. The primary Base Force will have its expected full strength value for aviation support points change so that its expected value equals 30 times the current size of the airfield (never greater than 250). This change in the expected value can cause replacement units to be built even when losses have not been taken. This will provide sufficient aviation points to support growing airfields.

## 15.5 ARRIVALS

The rules for ships, groups and land based units (collectively known as items) coming onto the map, when the assigned base is controlled by the enemy, are as follows: If not a full map scenario, the four possible main bases from the data base are checked, and if one of them is present and owned by the player, the item arrives in that location. In full map scenarios, the nationality of the item is determined and the following bases are checked in the order shown. If under friendly control, the item arrives at that base. If all arrival locations for the unit are enemy controlled, the unit will arrive as soon as one of the locations is recaptured and the unit will be listed as arriving at an unknown destination.

- **Japan** - Tokyo, Osaka
- **China** - Chungking, Chengtu
- **Britain** - Karachi, Bombay (includes India and Commonwealth)
- **Dutch** - Tjilitjap, Soerabaja
- **Philippines** - Manila, Cagayan
- **Australia** - Sydney, Melbourne
- **New Zealand** - Auckland, Christchurch
- **Soviet Union** - Rukhlovo, Ondorhaan
- **United States** - San Francisco, Los Angeles, San Diego, Seattle (includes France and any other nationality not listed).

## 16.0 VICTORY CONDITIONS

*"I have returned."*

- General Douglas Macarthur, *Supreme Allied Commander of South-West Pacific (at the Philippines, 1944)*

The Pacific campaign was a conflict that both America and Japan stumbled into. Neither side expected it to become a black hole that devoured men and material at a prodigious rate. Capital ships, especially aircraft carriers, were priceless and could not be risked lightly. America had few carriers to spare, while Japanese shipyards and training schools could not hope to replace severe losses in ships and trained aircrew. In *War in the Pacific - The Struggle Against Japan, 1941-45™*, points are given for destruction of enemy planes, ships and ground troops, and control of bases. Below is a detailed description of how victory points are awarded.

Throughout the game, both sides are scoring victory points (VPs). VPs are gained and lost as units are destroyed. At the end of the game, these points are totaled along with the points for bases controlled by either side, and these points are then compared to determine which side has won. Points are awarded in the following ways:

- **Aircraft Destroyed (Japanese or Allied):** 1 VP per plane destroyed
- **Allied ground unit items (squads, vehicles, or guns):**
  - **Phillipine and Chinese:** 1 VP for every 12 items destroyed
  - **Soviet:** 1 VP for every 6 items destroyed
  - **All Other Allied:** 1 VP for every 3 items destroyed
- **Japanese ground unit items (squads, vehicles, or guns):** 1 VP for every 6 items destroyed
- **Ships Sunk** - The VPs for sinking a ship is generally equal to the durability of the ship:
  - For CV and CVL ships, add 3 times the A/C capacity to the durability.
  - For CVE ships, add 2 times the A/C capacity to the durability.
  - For CS ships, add the A/C capacity to the durability.
  - For BB ships multiply their durability by 1.33.
  - For LST, LCI, PG and ML ships divide their durability by 2.
  - For SS ships divide their durability by 3.
  - For AP,AK,TK,AO,LSD divide their durability by 2.
  - If a ship is scuttled, it will score 10% less than its standard VP's.
  - Barges are worth zero VP's.
- **Ship Damaged** - In certain scenarios VP's are awarded for ships that have system damage at the end of the game but are not sunk. The points awarded is equal to the normal VPs for sinking  $\times \frac{1}{2} \times \text{system damage} / 100$ ). In scenarios allowing points for ship damage, ships may not be sent home to Japan, Pearl Harbor, or any other off map location. In these scenarios the Intel screen will list the total number of ships on each side that are damaged and the victory points earned for these ships. A display showing data on ships sunk will appear at the end of a scenario, and points scored from damaged ships is located in the player's Intel screen.

- **Control of Base** - Each base has a basic VP level for Allied ownership and one for Japanese ownership. The final victory point value that is awarded to the controlling player at the end of the game is figured by the following formula:

$$\text{Basic VP\#} \times [ (\text{current size of port}) + (\text{current size of airfield} \times 2) ]$$

The basic VP and final VP numbers for each side are displayed for each base when the mouse cursor is placed over a base (the basic VP number value is in parenthesis).

This full amount of the final VP value is only scored at the end of the game if the base has supplies at least equal to its needed supplies. If supplies are lower than the required amount, the VP's scored will be less than this maximum, (the lower the supplies the lower the scored VP's). Bases with 0 supplies would score 25% of the full final points.

Example: Rabaul has a Basic Japanese VP level of 3. Assuming the size of the airfield is 8, and the size of the port is 7, the Final VP level for Japanese ownership of Rabaul is  $3 \times [ (7) + (8 \times 2) ]$  or 69. As long as Rabaul had more than its supplies needed, the Japanese player would score 69. If Rabaul's supplies were only equal to 30% of its needs, the Japanese player would score only 33 VP's.

- **Industry damage** – Two VPs per point damaged, 20 VPs per point destroyed (an item destroyed when damaged will yield 18 more VPs). Industry can only be destroyed by firestorms and A-bombs, but can be damaged by any type of attack (including firestorms and A-bombs). VPs scored by damaging industry is cumulative; if an industry hex is bombed, damaged, repaired, then bombed again, the player keeps earning VPs as long as the industry hex keeps generating value by repairing itself.

This is true for **all** industry types including manpower.

Points will **only** be scored by the Allies for bombing industry in mainland Japan, and by the Japanese for bombing industry in North America, Australia, and/or Hawaii.

## 16.1 VICTORY LEVELS

*War in the Pacific - The Struggle Against Japan, 1941-45™* can end in either a Decisive or Marginal Victory for one side, or in a draw. Victory Levels are displayed at the end of the game and determined as follows:

- **Allied Decisive Victory:** Allied VP Score is 1.75 times (or greater) higher than the Japanese VP Score
- **Allied Marginal Victory:** Allied VP Score is 1.25 to 1.74 times higher than the Japanese VP Score
- **Draw:** The Allied VP Score or Japanese VP Score is 1 to 1.24 times higher than their opponent's score
- **Japanese Marginal Victory:** Japanese VP Score is 1.25 to 1.74 times higher than the Allied VP Score
- **Japanese Decisive Victory:** Japanese VP Score is 1.75 times (or greater) higher than the Allied VP Score

### 16.1.1 Victory After 1945

If the game ends in 1946 when the scenario time expires (as opposed to ending due to an Automatic Victory), the Victory Level moves two levels in the Japanese player's favor.

**For example, scenario 15 ends when time expires in March 1946 with the Allies having 1.8 times the Japanese points. Normally this would be a Decisive Allied Victory, but since it is ending due to time expiring in 1946, it shifts to a Draw.**

### 16.1.2 Using Atomic Bombs

If the Allies use 3 or more atomic bombs during the game, then the level of victory moves 1 level in favor of the Japanese. This is *in addition* to the 2 level move if the game ends with the time expiring in 1946. If the player achieves a Decisive Victory having used more than 3 A-bombs, then the Allies win a Marginal Victory.

If the game ends on its own due to time expiring in 1946, and three or more Atomic Bombs have been used, the best Victory Level the Allied player can hope for is a Marginal Victory for the Japanese (or a Marginal Loss for the Allies).



## 16.2 AUTOMATIC VICTORY

Once 365 days have been played into a scenario, there is a possibility that the game will end immediately due to an Automatic Victory Condition. If any of the following Automatic Victory criteria are met, the game will end immediately with the side that met the criteria winning a Decisive Victory (unless the A-bomb exception (section 16.1.1) has been triggered, in which case the Allies would at best score a Marginal Victory). In addition, if the Allies score an Automatic Victory after August 31, 1945, the victory scored will only be an Allied Marginal Victory (unless the Allies have used 3 or more A-bombs, in which case the game would end a draw).

### 16.2.1 Automatic Victory in 1943

In 1943, if one player has **4** times the VP's of the other, the game will end.

### 16.2.2 Automatic Victory in 1944

In 1944, if one player has **3** times the victory points of the other, the game will end.

### 16.2.3 Automatic Victory in 1945 or Later

In 1945 or beyond, if one player has **2** times the victory points of the other, the game will end.

## 17.0 SPECIAL RULES

### 17.1 REALISM OPTIONS

*War in the Pacific - The Struggle Against Japan, 1941-45™* includes several options that increase the realism of the game. These options are chosen from the Realism Options menu. These options are also detailed in section 2.0.

There are eight options to choose from:

#### 17.1.1 Fog of War

This setting only displays information on enemy units that have been sighted, and the information garnered will be based on the Detection Level of the unit (i.e., the information may be limited, approximate, and/or inaccurate). When set to **On**:

- Losses for ground units as well as the number of hits on bases (ports, airfields, supplies) are randomized to be inaccurate.
- Players will not be shown Victory Points for their opponent's damaged ships.

- When a ship is sunk a date is set when this information will be given to the opposing player. Until that time, the ship will not be listed as sunk and will not be reflected in the sunk ship victory points for the opposing player. The delay until the information is given is between 0 and 60 days. After the game ends, all damaged and sunk ship information is visible and counted in the final victory point total.

Not all ships will be reported sunk during the Execution Phase if the Fog of War option is used.

## 17.1.2 Allied Damage Control Advantage

If this is selected, Allied crews will be more effective at fighting fires and making repairs at sea.

## 17.1.3 Advanced Weather Effects

If set to **On**, there will be a different weather forecast every Day: Clear, Partly Cloudy, Overcast, Rain, or Thunderstorms. The worse the weather that Day, the greater the likelihood of an air Mission missing the target, or even of being grounded before takeoff. If this option is off, the weather forecast will always be Partly Cloudy.

Regardless of whether this option is turned on or off, the weather forecast on the first day of every scenario is always 'Clear.'

## 17.1.4 Japanese Sub Doctrine

If set to **On**, Japanese submarines will attempt to attack combat ships and generally avoid attacking non-combat ships. Japanese Sub Doctrine favored attacking combat vessels, and at this they were very successful in late 1942. However, this was at the expense of the opportunity to wreck havoc on Allied transports containing the troops and supplies that eventually won the war for the Allies.

## 17.1.5 Reinforcement Variability for Allied and Axis units

When set at variable, reinforcement times will vary for ground and air units and ships by plus or minus 15 days from the fixed dates in the scenario. When "very variable" the times will vary by plus or minus 60 days. This variable is set separately for each side. The "fixed" setting has reinforcements arrive as historically scheduled.

If either of the Variable Arrival settings is chosen in a PBEM game, neither player will be able to view their reinforcements on their Intel screens during the **first** turn of any scenario.

## 17.1.6 Historical First Turn

This option gives the player a chance to start a game by immersing themselves into the historical strategies selected by both sides for the forthcoming scenario chosen. With this option selected:

- A human playing against the computer will *not* be able to issue orders on Turn One.
- Neither player in a head-to-head (i.e., two human player) game will be able to issue orders on Turn One.

- Neither player in a PBEM game (i.e., two human player) game will be able to issue orders on Turn One. Essentially, *each* player's *first* turn is going to be skipped after entering their password, with the player being asked to save the game immediately. After both players have done this once, the second turn will begin by allowing the first player to enter orders after seeing the first turn's execution phase.
- In a computer-versus-computer game, the player *will* be able to issue orders on Turn One, if the player desires to.

## 17.1.7 Variable Setup

If this option is selected along with Historical First Turn (section 2.4.5), and either scenario 8 (First Year, 7 Dec 41 – 31 Dec 42) or scenario 15 (The War in the Pacific), the game will have one of four possible random openings:

- **OPERATION OUTFIELD:** If this random opening occurs, Kimmel sends forces to Midway, Johnston Island, and Wake Island. These include ships and air groups. Some Allied submarines are repositioned. There is a very good chance that all groups and anti-aircraft batteries are put on alert, *even if the December 7th surprise option has been selected*. The idea is that Kimmel has taken the dispatches from Washington seriously and is spreading a force umbrella to protect the Hawaiian Islands. Due to the odd, out of the way path the Japanese take to Pearl Harbor, this is unlikely to work. Still, some forces begin the game in different places. In addition, there are some dispersal of Allied air groups in the Central Pacific, Philippines, and Malay.
- **OPERATION INFIELD:** If this random opening occurs, Kimmel forms a surface fleet which he keeps in the Pearl Harbor area and brings both Carrier Task Forces close to home port. Some air groups are repositioned and put on alert. Some Allied submarines may be repositioned. In addition, there are some dispersal of Allied air groups in the Central Pacific, Philippines, and Malay. This opening usually produces a fierce carrier battle on turn one near Pearl Harbor.
- **OPERATION HOME PLATE:** If this random opening occurs, Kimmel assumes the safer course to be pulling all Task Forces into port. Surprise is likely, and the Japanese are happy to find two American carriers in port, when they launch their attack.
- **DECEMBER 7th SURPRISE:** If this random opening occurs, the standard turn one is played.

## 17.1.8 December 7th Surprise Rule

If the player selects a scenario that begins on December 7th, 1941, this option may be selected. When chosen, during the Morning Phase **only on December 7, 1941**, the following occurs to represent Allied surprise:

- Allied air units flying patrols (CAP, search, etc.) have a 50% chance of not flying any aircraft
- If an air group passes this test and elects to fly, the number of aircraft that will fly is reduced by 75%
- The Allies will launch no airstrikes
- Japanese Naval TFs move at twenty times their normal speed to reach their destinations

- Aircraft making a port attack during any December 7 phase will attack ships 100 percent of the time if there are at least 10 ships in the port
- Aircraft hit on any Allied airfields suffer increased damage
- Japanese ships on Turn 1 will not use more than 3 hexes of fuel, representing their tanker support
- Japanese Fast Transport TFs do not receive a bonus movement rate on Turn 1

## 17.2 EMERGENCY RESCUE OF SURVIVORS

Whenever a ship sinks, other ships in the same TF will automatically attempt to rescue personnel (squads and support troops) that are loaded on the sinking ship. Every ship is rated for its emergency rescue capacity. Ships carrying these rescued troops will unload them at the first opportunity, either when the TF reaches its Destination Hex or its home base.

## 17.3 HIGH-ALTITUDE AIR COMBAT

P-39D and P-400 aircraft are less effective in air-to-air combat if fighting at altitudes over 10,000 feet. To reflect this, one point is subtracted from their maneuverability rating for every 1,000 feet over 10,000, up to a maximum penalty of 15 maneuver points.

## 17.4 EARLY WAR ZERO ADVANTAGE

During the timeframe December 1941 – April 1942, the Japanese aircraft types A6M2 Zero and A6M3 Zero are given an advantage in air to air combat by having a bonus added to their maneuverability as follows:

- December 1941: **+5**
- January 1942: **+4**
- February 1942: **+3**
- March 1942: **+2**
- April 1942: **+1**

This is to account for the fact that the extreme maneuverability of the Zero was unknown to most Allied pilots. This allowed the Japanese to take advantage of poor Allied tactics. Eventually the Allies began to appreciate the performance aspects of the Zero and devised tactics to offset its advantage.

## 18.0 NOTES ON COMBAT

### 18.1 LAND COMBAT

The value listed after the unit's symbol is its **Assault Value** (or, if the unit is artillery, the number of tubes engaging).

The Assault Value listed during the Orders phase is the unit's potential value, and will not always be the same as the value listed in the Combat Screen. The value listed in the Combat Screen has been modified by the combat situation, unit disruption, fatigue, damage already sustained, and the general confusion of battle. During combat execution, the player will note that the unit's value may sometimes be decreased. This dynamic value is the one actually used in the combat calculations.

After combat, the unit has had some time to bandage wounds and reorganize, so its resting value may be higher than it was at the end of combat. The values in combat can be used to determine the general condition and strength of the opposition, but fog of war makes it impossible to assume accurate figures.

### 18.2 NAVAL COMBAT

The general situation is now displayed at the beginning of combat. Non-combat task forces will try to disperse and flee, while escorts run interference and engage the enemy task force. Fog, darkness, sea conditions and the lack of knowledge of minefields or other forces in the area can sometimes make full engagement difficult for the combat task force trying to attack a non-combat force. And, although the player can see all the ships in the defending task force, the task force commander may not be able to. Combat task forces will try to engage each other in the most favorable fashion. If possible, they will try to cross the T, that is turn and fire broadsides at the front of the enemy column. If they cannot, they will try to assume the best position. The player should note that non-penetrating hit locations are now displayed and penetrating hits now display a variety of messages, concerning the nature of the damage. The messages are taken from tables assigned to various ship locations and are generic in nature. So, messages saying that the ship is taking on water, for instance, mean damage below the water line has opened the ship to the sea.

### 18.3 AIR-TO-AIR COMBAT

The cloud cover over the general target area is now displayed. This affects the bombing accuracy and the ability of CAP to find the attacking aircraft. The message that the group is climbing to intercept, means it does not have adequate climb rate to engage effectively during that impulse. Higher altitude gains an advantage for both attacking fighters and bombers. The messages that the group is intercepting means it has sufficient altitude and is close enough to attack effectively. The message that LR CAP (long range CAP) is intercepting means some CAP was approaching, while some returned to base and the group is engaging with less effectiveness than if it were all

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together. The message that the group area CAP is intercepting means that the CAP was spread out over a goodly area and is engaging, like LR CAP, piecemeal. There may also be a group tactic. This is what the group leader is trying to do and may include bouncing, that is attacking from above or with surprise, attacking head on in a slashing attack, maneuvering for a tail attack, gaining the advantage by attacking in formation or engaging, that is just trying to get his planes to shoot at the enemy, however they can. After this last message is displayed, the flights exchange fire. Each group is broken into flights and these are handled separately. Each flight is broken in individual planes and these are handled separately. Cloud cover, the range the attacking group has had to fly, the group leader's characteristics, the relative altitude and the aircraft characteristics, mainly speed and maneuverability help to determine the relative position and conditions under which the individual pilots operate.

Similar tactical calculations are made for each pilot. So, although the flight may be at a tactical advantage the pilot may not be able to take advantage of that advantage. When fighters attack bombers, the messages will tell the attacker and direction of attack.

On the bomb run, the cloud cover over the specific target is displayed. When bomber formations turn back or fighter formations break off, a message now appears.

## 19.0 APPENDICIES

### 19.1 APPENDIX A - GLOSSARY AND ABBREVIATIONS

#### 19.1.1 Glossary: Game Abbreviations

A/C – Aircraft  
ASW – Anti-submarine Warfare  
CAP – Combat Air Patrol  
DH – Destination Hex  
DL – Detection Level  
Dst – Destination  
Dur - Durability  
Flt – Floatation damage  
HQ - Headquarters  
MDL – Maximum Detection Level  
Mvr - Maneuverability  
Ops - Operations  
SOPAC – South Pacific  
SPS – Standard Potential Size  
SWPAC – Southwest Pacific  
Sys – System damage  
TF – Task Force  
VP – Victory Point

#### 19.1.2 Military Abbreviations

AD – DESTROYER TENDER  
AE – AMMUNITION  
AG – COLLIER  
AGC – AMPHIBIOUS FORCE COMMAND  
AGP – PT BOAT TENDER  
AK – CARGO  
AO – OILER  
AP – TROOP TRANSPORT  
APD – HIGH SPEED TRANSPORT (CONVERTED DESTROYER)  
AR – REPAIR  
AS – SUBMARINE TENDER  
AV – SEAPLANE TENDER  
AVD – SEAPLANE TENDER DESTROYER  
BB – BATTLESHIP  
BC – BATTLE CRUISER  
CA – HEAVY CRUISER  
CL – LIGHT CRUISER  
CLAA – LIGHT CRUISER, ANTI AIRCRAFT  
CS – SCOUT CRUISER

CV – AIRCRAFT CARRIER  
CVE – ESCORT CARRIER – AKA THE JEEP CARRIER  
CVL – AIRCRAFT CARRIER LIGHT  
DD – DESTROYER  
DE – DESTROYER ESCORT  
DM – DESTROYER (MINELAYER) – SPECIAL DESTROYER ARMED WITH MINES FOR ASW  
DMS – DESTROYER MINE SWEEPER (OR HIGH SPEED MINE SWEEPER)  
LCI – LANDING CRAFT (INFANTRY)  
LCM – LANDING CRAFT (MECHANIZED)  
LCT – LANDING CRAFT, TANK  
LCVP – LANDING CRAFT (VEHICLE PERSONNEL)  
LSD – LANDING SHIP (DOCK)  
LST – LANDING SHIP (TANK)  
ML – MINE LAYER  
MLE – MINE LAYER TENDER  
MSW – MINE SWEEPER  
PC – PATROL COASTAL – OR SUBMARINE CHASER (173')  
PG – PATROL GUNBOAT  
PT – PATROL TORPEDO BOAT  
SC – SUB CHASER (110')  
SS - SUBMARINE  
TK - TANKER

## 19.2 APPENDIX B - PBEM GAME SECURITY

*War in the Pacific - The Struggle Against Japan, 1941-45™* contains a feature that informs the player which scenario he is playing, if it is an official *War in the Pacific - The Struggle Against Japan, 1941-45™* campaign or a user designed campaign or if an official campaign has been modified or corrupted. Scenario slots 1-25 are reserved for official unedited campaigns. These campaigns can be edited but **not** saved in campaign slots 1-25, but only in slots 26 and above. You can check your campaign status at the bottom of the in-game Preferences Screen. Players will see one of the following three messages:

**Scenario #1-25 – Campaign Name.** This is an official War in the Pacific Campaign.

or

**Scenario #26-199 - Campaign Name.** This is a user defined Campaign.

If an edited campaign is found in slots 1-25 you will receive the following message.

**Warning: This official *War in the Pacific* Campaign has been edited which could lead to unbalanced play. Please check with the other player.**

The latter message indicates that one or more of the campaign files have become corrupted or a player has edited and renumbered an official campaign file. The message pretty much means that the players should start the campaign over. If the message persists, the Japanese player should reinstall the game and start over.



To help players guard against turns being replayed for better results, we have designed our replay feature to save all game turn results. This means that no matter how many times the same turn is played, the results will always be the same. To ensure the integrity of your PBEM games, all players will now need to restart their *War in the Pacific - The Struggle Against Japan, 1941-45™* session before being allowed to proceed with a second PBEM game turn.

## 19.2.1 Saved Game File

Our saved game files are already compressed and encrypted when a game turn is saved. Players will gain very little in terms of file size reduction by zipping them with another third-party compression program. The game will now save the PBEM game in a file with your defined save name. These files are in your War in the Pacific \SAVE directory and use a .dat extension.

## 19.3 APPENDIX C – STYLES OF PLAY

*War in the Pacific - The Struggle Against Japan, 1941-45™* is played by two sides, one side is the Japanese and the other side is the Allies. *War in the Pacific - The Struggle Against Japan, 1941-45™* is played by choosing one of the many different battles or campaigns known as scenarios. A scenario may be played by one person against the computer, computer vs. computer or by two persons playing against each other using a variety of possible play styles. The styles of play available in *War in the Pacific - The Struggle Against Japan, 1941-45™* are Two-Player Hot Seat and Play By E-Mail (PBEM).

### 19.3.1 Computer Controlled Japanese / Allied Forces

This option allows the player to play one side while the computer controls the other side's forces. The computer controlled opponent should give players a moderately challenging experience.

### 19.3.2 Computer vs. Computer

This style of play is generally used for two main reasons. This first is for players that edit or design their own scenario battles or campaigns to test there designs in a timely fashion without the need to dig up willing opponents to help them. The second is for a player to simply watch the game in action and get an idea on how the game play unfolds as he is beginning to learn the system. While this second option can prove interesting, we predict players will want to jump in themselves before too long.

### 19.3.3 Hot Seat

Two players at the same computer can play against each other by taking turns sitting at the computer entering their orders. Once both players are done making there orders both players can then review the results together.

### 19.3.4 Play By E-Mail (PBEM)

PBEM allows players to play turns and send them to their opponents via E-Mail. Once you find an opponent you will both need to choose who will be controlling what forces, the scenario or

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campaign to play and what optional features you will be playing with. The Japanese player must start the game and must make sure to select the choices that were agreed to by both players beforehand. Once all this is done and the battle is started the Japanese player will be prompted for a password. DO NOT forget your password if you do you will have no choice but to start over. When you are finished with your turn you will automatically be taken to the Save Game Screen. Select a free slot or an old slot that can be erased and follow these two steps:

1. Give the game a name with a turn number that allows you to readily know what turn it is and which side created it. (example: Allies3, Jap3, Turn3a or Turn3j)
2. Now write any notes and select **Save**.

The game will now save the PBEM game in a file with your previously selected name, these files use a .dat extension. Our game files are already compressed and will gain very little by zipping them with another compression program like Winzip. The player can now E-mail their opponent the turn. The save file can be found off of the main game directory in the save folder. If the default directory was used to install the game the newly created save file would be located in **C:\Matrix Games\War in the Pacific\Save**.

When the other player receives the e-mail with his opponents' saved game it needs to be copied into his saved folder. To start the save game file, start the game and select "Load Saved Game" from the main menu enter your password and the turn will start.

**The Japanese player needs to be sure to send his save, as well as the save in slot 001 which is the combat replay. If the combat replay is not sent the player receiving your turn will not be able to view what happened before their turn!**

## 19.4 APPENDIX D - CARRIER LOADOUTS

### 19.4.1 Standard Aircraft Load For Japanese Fleet Carriers

Japanese Fleet Carriers (the largest Carriers, such as the *Akagi*, *Soryu*, etc.) carry Fighters, Dive Bombers, and Torpedo Bombers only. (A few Fleet Carriers had one or two specialized search aircraft, but these are represented by the system intrinsically and not via an actual unit.)

The number of aircraft each Fleet Carrier has on board is roughly divided into thirds – i.e., 1/3 Fighters, 1/3 Dive Bombers, and 1/3 Torpedo Bombers, from December 1941 until the end of June, 1942. On July 1, 1942, and thereafter, all Japanese Fleet Carriers have their loadouts changed to roughly 3/8 Fighters, 3/8 Dive Bombers, and 3/8 Torpedo Bombers.

## 19.4.2 Standard Aircraft Load For USN Fleet Carriers

Refer to the Plane & Weapon Database within the game program for full descriptions of the aircraft types.

**VF:** Fighter Squadron

**VS:** Scout Squadron

**VB:** Dive Bomber Squadron

**VT:** Torpedo Squadron

**VBF:** Fighter/Bomber Squadron

SQN	NUM	TYPE
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### EARLY 42

VF	27	F4F-3
VS	18	SBD
VB	18	SBD
VT	15	TBD

### LATE 42

VF	36	F4F-4
VS	18	SBD
VB	18	SBD
VT	15	TBF

### 1943

VF	36	F6F
VB	36	SBD
VT	18	TBF

### EARLY 44

VF	40	F6F
VB	34	SB2C
VT	18	TBF

### LATE 44

VF	42	F6F
VB	32	SB2C
VT	18	TBM

### 1945

VF	36	F6F
VBF	36	F4U
VB	15	SB2C
VT	15	TBM

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# WAR IN THE PACIFIC

*The Struggle Against Japan 1941 - 1945™*

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## OUR STRENGTH

We thank God for giving us the ability and strength to follow our dream.

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